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Educational News and Editorial Comment

THE CHICAGO DINNER

The annual dinner of the graduates and former students of the University of Chicago in connection with the meeting of the Department of Superintendence will be held in Chicago on Wednesday evening, February 27, 1924, at the Auditorium Hotel. Tickets can be secured for $2.00 each by addressing W. S. Gray, University of Chicago.

CHICAGO'S NEW SUPERINTENDENT

Chicago has a new superintendent of schools, William McAndrew. He is a man of the highest personal and professional qualifications. He was elected on merit by the best board of education that the city has had in a generation.

Mr. McAndrew comes, under the most auspicious circumstances, to an opportunity for constructive work which is not surpassed in American education. He comes to the central section of the country, where education is progressive and adequately and enthusiastically supported. He comes to a great city which has just commenced to realize the necessity of professional, rather than political, control of its schools. He comes to a community which

is calling for leadership and which gives every evidence of genuine interest in the wise expansion of educational opportunities.

Mr. McAndrew will find serious problems. He will find a school system so large that centrifugal forces threaten its unity. He will find grave difficulty in introducing the technique of scientific supervision and promoting at the same time personal initiative among the teachers and principals. He will find a seriously understaffed central organization, for in this respect Chicago is conspicuously deficient, although all of the great cities of the country are in some measure suffering from the same fault. He will confront, on a huge scale, the task of housing pupils and maintaining teaching efficiency.

It is a matter of more than local interest and importance that a large opportunity and great problems have been put into the hands of a man competent, vigorous, and well trained by experience. Mr. McAndrew will be the most observed man in American education, and it is the confident expectation of his friends that he will solve his problems in the future, as in the past, by the methods which make him an honor to the profession.

The *School Review* has special pride in welcoming Superintendent McAndrew to his new work. He has been for many years a member of the Advisory Board of this publication and a contributor to its pages. To their professional welcome, therefore, the editors venture to add their most cordial personal welcome.

THE MICHIGAN CONTROVERSY REGARDING PRIVATE SCHOOLS

Several years ago a proposal to modify the constitution of the state of Michigan so as to close all private schools was defeated at the polls, and later a law was enacted subjecting private schools to inspection by the State Department of Public Instruction.

It is believed by many citizens of Michigan that inspection has not been successful in bringing parochial schools under state control, and a move is being made to secure a second vote on a constitutional amendment. In the effort to counteract this move, an association, known as the Private Schools Association of Michigan, has been formed, with headquarters at the state capital. This association is issuing pamphlets in support of the contention that the right

of parents to educate their children in private schools is a fundamental constitutional right.

Incidentally, it may be noted that this issue is now before the Supreme Court of the United States in a suit brought to nullify the Oregon law abolishing private schools.

The attitude of the private schools of Michigan is set forth in a folder recently issued by the association under the title, "Drawing the Line: The Supreme Court and the Schools." If the position taken in the last part of the section here reproduced is valid, there will have to be a very considerable curtailment of the activities of most state departments of education.

The right of private schools to exist for children is a fundamental right. The right of teachers to teach in private schools is a right of contract fundamental in relations between a teacher, a school, and the state. The right of parents to send their children to private schools, if they wish to do so, is an inalienable right, founded in the common law and in the whole history of the republic.

All these rights are, in a sense, more far-reaching than any right to religious instruction for a child in the school he attends. They are more far-reaching because, including the right to religious instruction, they also involve the right of private initiative in the founding and conducting of schools, the right of contract between schools and teachers who desire to follow their profession under such auspices, and the absolute right of the parent to direct the training of his child, subject only to complying with the state's mental tests, not to any requirement of a particular school in which the child shall be taught. These rights are more far-reaching than the right to religious instruction because a great many schools unconcerned with religious instruction have their investment, their routine, and their whole tradition threatened with extinction by any movement to force all children into the public schools.

Aroused by attempts to attack these basic rights of the citizen and by the lack of acquaintance such attempts show with the history, tradition, present functions, and numerical importance of private schools among us, the Private Schools Association of Michigan has organized to present its citizen rights to its fellow-citizens, the citizen rights of both the proprietors and the patrons of these schools, and to make manifest the educational ideals that guide them.

"The hours which a child is able to devote to study in the confinement of school are limited. It must have ample time for exercise or play."—*The Nebraska Supreme Court in a decision of 1923.*

This being true and obvious, the Private Schools Association of Michigan feels that the atmosphere of study and the method of study are as important as the page-by-page instruction given each pupil. The association believes

that private schools equal, and in many instances are able even to excel, the public schools in the study mood of the schools, particularly in the amount of individual attention that can be given.

But whether the private schools can easily maintain a full comparison with the public schools, as this association believes to be the case, is entirely beside the mark so long as these schools furnish state-certificated teachers and meet the state's requirement as to the subjects that must be taught. Beyond that the state has no right to go. It may not name the particular building, the particular teachers, or the additional subjects that a private school shall or shall not use for its pupils. It may, and indeed it must, supervise these buildings and teachers and these subjects in order to make sure that the state's minimum requirements for all teachers and all pupils and all buildings, public or private, are complied with, but it cannot go farther.

"That the state may do much, go very far, indeed, in order to improve the quality of its citizens, physically, mentally, and morally, is clear; but the individual has certain fundamental rights which must be respected."—*United States Supreme Court in a decision of 1923.*

JUDGMENTS REGARDING EDUCATIONAL VALUES

N. E. Schwartz, of Sandstone, Minnesota, writes as follows to the editors of the *School Review:*

Several years ago I had the idea that it might be worth while to get the opinions of a large number of successful business men as to which of the subjects usually taught in the high school are the most useful.

I had score-sheets mimeographed listing the subjects taught in the ordinary high school and showing in six columns what I considered at that time the aims of education, such as vocational utility, preparation for citizenship, general information, etc. Each man was asked to score each of these subjects under each of the aims. If, for instance, science is considered absolutely necessary because of the contribution it makes to the vocational preparation of a student, it would receive a score of ten; if it has no value, it would be scored zero; if it has some value, the individual would score it between zero and ten as his judgment guided him.

To assist these men in having a common basis of judgment I had sheets mimeographed explaining what is taught under the heading of the various subjects and also explaining more fully the various aims of education.

I undertook the investigation in the belief that I could in this way contribute to the solution of the high-school curriculum problem. I also use this score sheet in dealing with another problem, Whenever I hear anyone complaining about the subjects being taught, I ask him to record his opinion of the subjects in question. I ask him how the subjects should be taught and induce him to score all of the subjects. It is surprising to find how closely the average man agrees with what we actually do when he considers the problem.

I have made a composite tabulation of the opinions of about fifty individuals selected from various professions and walks in life so as to avoid the overweighting of any subject through professional prejudice. Of course, fifty is too small a number of scores to rely on for final judgments, but the results are suggestive. The composite score of these fifty men shows that English ranks the highest with an average score of 48 out of a possible 60; the social subjects rank second, with a score of 40.5; and the surprise of all is that physical training ranks third, with a score of 37.4. The lowest of the fourteen subjects listed is Latin, with a score of 14.5; and next above Latin is modern language, with a score of 18.2.

A MANUAL OF HIGH-SCHOOL ADMINISTRATION

The great increase in the size of high schools in recent years has complicated administration and has made adjustment for the entering student a difficult and oftentimes a long-drawn-out process. In high schools with from 50 to 300 students enrolled administration is relatively simple because it is possible for everyone to know personally practically the entire student body and the faculty in a very short time, and, as a result, school customs and regulations may be easily transmitted and absorbed. In the larger schools, ranging in size from 500 to 5,000 students, the situation is different. The incoming student is likely to be submerged in the crowd, and, unless a very definite and painstaking effort is made by the administration to assimilate the newcomer, maladjustment may follow with ultimate elimination.

Many of the larger high schools have attempted to meet the problem through the publication of "student handbooks," designed to familiarize the beginning or prospective student with the important practices and activities of the school. Of such publications, a recent one from the Central High School, Tulsa, Oklahoma, with a new and more appropriate title, "Manual of Administration," merits special mention. The manual was prepared primarily for the student, and its purpose is clearly set forth in the following paragraph from the Foreword:

> This book was prepared for *you* with the sincere hope that it might acquaint you, somewhat at least, not only with the spirit, the ideals, and the objectives of the Tulsa High School, but with the working details of our large organization by which and through which our loyal spirit is maintained, our high ideals promoted, and our broad objectives realized.

In a letter of greetings the principal, Merle C. Prunty, welcomes the entering student and seeks to impress upon him the advantages offered by the community through the high school.

> The doors of the American high school swing open to every American youth who is willing to accept the advantages of a high-school education.
>
> No other nation in the history of the world has ever approximated the free high-school advantages which America gives to her young people.
>
> We welcome to these halls *you* who desire the advantages here offered. We congratulate *you* upon your wonderful opportunity. Tulsa has generously expressed her earnest faith in *your future* by providing *you* with very unusual high-school privileges. We wish *you* every possible success in realizing for *yourself* a four-square growth represented in the Tulsa High School by scholarship, leadership, service and character.

The manual is more comprehensive than the usual student handbook. In addition to the customary account of student activities, it contains a description and plan of the high-school building, a detailed explanation of the procedure in registration, information regarding the election of courses, general information concerning administrative routine and personnel service offered by the school, and a section on "Suggestions to Parents," giving advice with regard to the home study of students and many other matters in which the active co-operation of parents is desired.

PRIZES FOR ESSAYS IN ECONOMICS

The following notice is issued concerning the contest authorized by Alvan T. Simonds, president of the Simonds Saw and Steel Company of Fitchburg, Massachusetts:

> Two years ago Mr. Simonds offered a prize of $1,000 to high-school students for the best essay on the teachings of Adam Smith and their application to the present-day conditions. This prize was won by David Koch, a student in the High School of Commerce, New York City. Last year the topic was "The Lack of Economic Intelligence and its Cost, Individual and Social, to the People of the United States." Three of the prizes went to New York City boys in the commercial high schools.
>
> Mr. Simonds is pleased that the boys training for business careers in the metropolis are judged by economists and business men to be well trained in economics. But what of the boys in the commercial high schools and courses of our other cities and of the boys in the general high schools? Where are the girls? Is economics an exclusively masculine subject? The business men

and women and the voters of the future are now in our high schools. With the growth of business, there are more business problems in politics than ever before in our history.

New York City made economics a required study in all high schools five years ago, and the awards in the Simonds prize contest are partly the result of that training. In the western and central states, economics has been taught much more extensively than in the East, and practically all of the high schools there are co-educational There seems to be but two reasons why the boys and girls outside of New York City have not been awarded prizes in this contest. Either they do not know about it, or they do not know where to get the material and how to use it. The Educational Department of the *Reviews of Reviews*, which is in contact with thousands of teachers and high-school students throughout the country, has devised a plan whereby every high-school student of economics shall have the same advantages as the New York City boys had in the first two contests. They have had prepared a guide for students with suggestions for this contest. In addition, they have obtained from an experienced high-school librarian a list of references to books and magazines. These helps have been included in a booklet describing the contest which they are sending free to all high-school students who apply.

With this assistance the boys and girls of every state should be able to enter the competition for the nine prizes offered by Mr. Simonds. The contest is open from December 1, 1923, to May 31, 1924. The first prize is $500; the second is $300; and there are seven third prizes of $100 each.

DEFINING THE SPHERE OF SUBJECTS OF INSTRUCTION

A joint commission representing six of the societies especially interested in the social studies adopted a unique method of adjusting the claims of various subjects to recognition in the school curriculum. A description of this method is given in the following paragraph taken from a circular which presents the results of the efforts of the commission.

The joint commission has tried to secure a consensus of expert opinion concerning the distinctive contributions of the studies which appear in this document. It made preliminary inquiries from 100 historians, 100 political scientists, 100 geographers, 100 sociologists, and 100 economists. It then sent out to committees of 100, for further suggestions and criticisms, a tentative formulation of the distinctive contribution of each field. On the basis of the replies received, the representatives of each field worked out, in co-operation with the other members of the joint commission, a second tentative formulation. This was sent to all members of the societies concerned and, after allowing time for replies, the joint commission again met and worked out the formulations set forth in this document.

As an example of the type of definition given to a single school subject, the following section dealing with history may be quoted:

History deals with the whole past life of mankind and is as many sided as life itself. History inevitably appeals differently to different persons. Some profit chiefly by the stimulus to their imagination; others broaden their horizon by a larger view of the world and its development; still others find their political understanding stimulated by more detailed study of the political and social problems of the past.

The distinctive contribution of history to a school curriculum organized around social objectives is the portrayal of human events and activities as they actually occurred; its guiding principles are continuity and development. Therefore, these events and activities are not regarded as isolated, unrelated, or of equal importance. Every condition or event is conceived to be related to something that went before and to something that comes after. Conditions and events are deemed important in so far as they serve to throw light upon some course of development. More briefly, then, a special and peculiar function of history is to trace development.

History places, and helps to explain, successive stages in the development of mankind. In the light of history our most valued social possessions are seen to be deeply rooted in the past, and the world is viewed as undergoing a continuous process of adjustment and change. Furthermore, the study of successive civilizations, with their differences and similarities, promotes a more sympathetic understanding among individuals, groups, and peoples.

History, by creating a sense of perspective, gives an intelligent notion of those human activities, decisions, and achievements which lie behind our present-day institutions and problems. It makes intelligible the constant references to people and conditions of the past in literature, speeches, public discussions, and in the daily press. It affords training in the collecting and weighing of evidence. It furnishes a body of materials for the other studies for comparison and construction.

History supplies the necessary background for an appreciation of much that is best in literature and art. It gives more interest to travel. It develops fair-mindedness by showing how loyal citizens have honestly differed on public questions. At the same time, it stimulates an intelligent patriotism by familiarizing young people with the history of their own country and its place in the world.

History is to society what memory is to the individual. It is the record of the accumulated experience of the past and serves as the key to the storehouse of human experience for the guidance of man in dealing with the problems of the present.

A COURSE IN BUDGET-MAKING

The principal of the high school at Waukegan, Illinois, Paul G. W. Keller, reports a plan for the cultivation of the spirit of thrift and philanthropy which has been adopted in his school.

Every Tuesday the pupils are provided, during the period set aside for social and school activities, with mimeographed bulletins dealing with various aspects of the problem of budget-making and with the general principles of thrift. At the same time each pupil deposits a certain sum of money either as part of a personal savings account or as a contribution to some local or foreign philanthropy, such as the Salvation Army or the Near-East Relief.

The course is under the direct supervision of the Committee on Thrift and Budget-making. A chairman for the senior school and one for the junior school plan the work of the course and supervise its administration. In the saving plan a cup is offered to the room making the best showing for the semester. The number of depositors, the duration of the deposits, and the number of withdrawals are the chief factors considered in making up the score. The committee keeps an accurate record of the work done. Reports go to the principal's desk every week in good business form, indicating just what has been accomplished during the week.

The bulletins deal not only with matters of money-saving but also with the broader principles of thrift. The following extract indicates the spirit and character of the course:

Thrift in time.—The old saying that time is money is a vital truth. The one who expects to have a successful life and to get ahead financially must know the true value of time. There is no form of waste that is more general than the waste of time. The well-trained football or basketball team understands that a fraction of a minute wasted will lose the game. Wasting time is a habit.

Getting results out of time: (*a*) *Time spent at study in school.*—The test of the wise use of time is not how many minutes are given to any subject but what results are received from the use of those minutes. Many a student who wants to be the most diligent and who is most obedient to the rules of the school may be among the greatest of time wasters because he does not know how to work for concrete results.

(*b*) *Time spent at study in the home.*—If there is to be home study, it should be understood that this is not a mere duty to the school but an opportunity for the student; there should be a definite time to do it and an ambition to get the largest results in a minimum of time.

(*c*) *Time spent at play in the school and in the home.*—Play is one of the best means of keeping mentally and physically fit. It may be one of the worst of mental or physical dissipations, depending on the attitude of the individual toward it.

(*d*) *Time spent at work outside of school.*—Children at the proper age should be taught the money value of time at work and what it costs to waste it. Habits of promptness in going to and from school, at work in school or out, and in doing errands will lead to success.

Thrift in time is using time for work, leisure, and play so as to get the largest benefit from each.

We waste time by not thinking our work through carefully before beginning it, by a lack of interest in our work, by doing poor work, by visiting with others when we should be sticking to the job, and by thinking while at work about other things than our particular piece of work.

Everyone should spend some time at work outside of school because a person cannot succeed unless he works. Everybody should earn at least a living by working. People lose respect for those who do not work.

Leisure is the time not needed for work or play but which can be used for some duty or opportunity that arises at the moment.

SEX EDUCATION

The question of informing children of elementary- and high-school age regarding sex matters has been much discussed by physicians and educators, but no practical program of instruction which would command the respect and confidence of all persons concerned has as yet been developed. A recent bulletin by Dr. Herman N. Bundesen, commissioner of health of Chicago, on "What Will You Tell Your Child, and How?" places the responsibility for the teaching of sex hygiene where it rightly belongs—on the parents—and offers constructive suggestions regarding both what should be taught to children at different ages and the appropriate technique of teaching it.

In the foreword of the bulletin, Dr. Bundesen laments the failure of parents to provide for the proper sex education of their children.

> Usually the child is left to meet this problem with practically no guidance whatever. It is the hope of parents that when sex impulses and temptations begin to invade the consciousness of the child, right knowledge will come somehow through divine inspiration or intuition. But the sex disasters of the present younger generation have shown that right sex knowledge does not come from accidental sources. The slaughter of the innocents through social diseases shows the necessity of imparting sex knowledge early according to a definite plan and from the right source. The more enlightened minds have begun to see that sex education consists not merely in giving the child information concerning sex or a warning of the dangers of disease, but includes the entire field of morality, health, manners, and social and racial responsibility.

It means character development and healthful living. It means that telling children the truth will alone insure good morals. It means that it is better to inculcate early a love of morality than to attempt later to create fear of the consequence of immorality. It means a comprehensive and progressive program of care and guidance by precept and by personal example, extending over a long period of years, from infancy to maturity.

In addition to a very clear concrete statement of "What to Teach the Children about Themselves," Dr. Bundesen treats the mooted question of "Who Should Teach the Children?" and discusses the problems of sex instruction for boys and girls at different ages. A classified list of the best and most recent reference material is also given for further reading.

While the bulletin is written primarily for parents, it should be welcomed and widely read by teachers and administrative officers.

A SCORE-CARD FOR EDUCATIONAL FILMS

The Bureau of Extension of the University of Texas, through its Division of Visual Instruction, has issued a score-card which raises various questions regarding educational films and provides for the rating of films through the use of these questions. The card may be used not only for educational pictures but for entertainment pictures as well.

The appearance of this card furnishes another opportunity to emphasize a matter which was discussed in an earlier issue of the *School Review*. Schools are remiss in their duty if they do not try to cultivate the taste of pupils for better films in the same way that the courses in literature aim to elevate the literary taste of the pupils. The motion-picture theater will respond to public demand. If taste is crude and low, the theater will supply crude and vulgar pictures. If extravaganza instead of artistic realism is called for at the box-office, the theater will supply films that lack respect for truth.

It would certainly be a service to society if teachers in the high school would make a beginning in the critical study of films. Is it not possible to secure from the pupils some discriminating essays on what they think of the entertainment films? Such essays would be revealing. They would show the present state of pupil-taste

in such matters, and they would serve to train taste and to develop a higher form of discrimination.

The Texas score-card is as follows:

SCORE-CARD FOR EVALUATING EDUCATIONAL FILMS

General standard: Does the moving picture, in a satisfying and economical manner, effect learning that is worth while?

More in detail:

Rating

1. Does the picture effect specific learning? Produce *useful* changes in the observer's intelligence? Picture memories? Facts, ideas, concepts, inferences, generalizations, suggestions for improving skills, insights, ideals, and ambitions? This intellectual growth should consist mainly of concepts involving behavior, movement, or perceptible change—dynamic ideas, in brief. Does the picture embody the truth in all essentials? And, if fiction, is it free from objectionable error? _____
2. Does the picture create a problem in the observer? And does it solve it decisively? Conform to the principles of unity, coherence, and emphasis? Main problem—vital, gripping, interesting, whetting curiosity, stirring emotions, etc. Subordinate problems—complicating, relevant to and building up the main problem? Solution—satisfaction in the solution of the main problem? Effective word-picture balance? _____
3. Does the picture appeal to socially approved native interests? And utilize the laws of attention? Elements involved: personification, human beings, animals, young things; mysterious, novel, familiar, and sensational behavior; hero worship, struggle and success, etc. Things that attract attention readily; animation. However, little or no appeal to anti-social instincts. _____
4. Is the picture good from a mechanical standpoint? Photography of superior quality? Arrangements and selection of scene elements effective? Captions brief, clever, correct, unobtrusive, thought-stimulating? Manifest approach toward artistic perfection? _____
5. Any other standard? ..... _____

Directions for using the score-card: Evaluate the picture for each standard in accordance with the following:

Excellent.....	E or 85
Good.....	G or 70
Fair.....	F or 50
Poor.....	P or 30
Unsatisfactory.....	U or 15

Then average your separate judgments into a single rating..... _____

THE GUIDANCE PROGRAM OF THE HOLMES JUNIOR HIGH SCHOOL

R. L. LYMAN
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In junior high school literature the term "guidance" has come to stand for the principle that lies back of all worth-while teaching of adolescents, namely, the well-rounded development of the individual through the wise direction of his activities. This article undertakes to explain how one experimental junior high school of Philadelphia, the Holmes Junior High School, has been making guidance, thus understood, the keynote of a systematic program which has so commended itself to the authorities that eighteen additional junior high schools are planned for that city.

Obviously, it is impossible in a brief article to set forth in detail all of the agencies, devices, and organizations which contribute to guidance in a school of seventeen hundred pupils and fifty-three teachers. Therefore, the present endeavor must limit itself to four outstanding features of the program—personal guidance, remedial guidance, civic guidance, and cultural guidance.

Lengthened school day.—The faculty of the Holmes Junior High School assumed that a program of student activities involving guidance must supplant the obsolete and barren endeavor to guide pupils by lessons and preachment. With this in mind, approximately one hundred student organizations have been evolved, a few at a time, as the expanding life of the school seemed to demand, all of them functioning in the direction of learning by doing under wise guidance. As the variety of activities grew, it was found necessary to provide for them a regular period in the daily program. This was accomplished very sensibly, according to current educational theory, by adding a seventh period to the school day for guidance. Naturally, opposition was at first apparent on the part of the pupils, and amusing stories are told about the methods by which pupil officers took effective measures to prevent absence

from the added period until finally the value of the work firmly established that extra period in the children's minds as an enjoyable climax to the day's work. That the reader may be assured concerning the systematic arrangement of the many interrelated guidance activities, a small portion, about one-fourth, of the weekly schedule for the seventh period is presented in Table I.

TABLE I

ONE-FOURTH OF THE SEVENTH-PERIOD SCHEDULE OF THE HOLMES JUNIOR HIGH SCHOOL

Teacher	Monday	Tuesday	Wednesday	Thursday	Friday
1.....	Triangle Club	Mathematics restoratory IX B	Professional	Travel Club	Guidance
2.....	Advertising Club	Advertising Club	Professional	Mathematics opportunity group	Guidance
3.....	English restoratory VIII A	Junior Dramatic Club	Professional	VIII B–IX A Dramatic Club	Guidance
4.....	English restoratory IX B–IX A	Scribblers' Club	Professional	Poetry Club	Guidance
5.....	Art Needle Club	Public Speaking Club	Professional	Costume Club	Guidance
6.....	English restoratory VIII B	Etiquette Club	Professional	Shakespeare Club	Guidance
7.....	Civic Club	Current Events Club	Professional	History restoratory VIII A	Guidance
8.....	Department of Public Welfare	Exploratory Club	Professional	History restoratory VII B	Guidance
9.....	German restoratory VIII B–IX A	Latin restoratory VIII B	Professional	French restoratory VII B	Debating Club
10.....	Botany Club (girls)	Botany Club (boys)	Professional	Science restoratory VII B	Science opportunity group
11.....	Stamp Club	Science restoratory VIII A	Professional	Bird Club	Guidance
12.....	Seton Club	Wild Flower Club	Professional	Science restoratory VII A	Guidance
13.....	Games	Games	Professional	Social Dancing Club	Athletic leaders group
14.....	Tennis Club and Swimming Club	Hiking Club	Professional	Social Dancing Club	Athletic leaders group

Personal guidance.—Three weeks in the month the seventh period on Wednesday is set aside for teachers' meetings and various other faculty conferences. On these days the pupils are dismissed for the final period. Every teacher uses the last period of the fourth Wednesday for personal help with pupils in her classes who have met special difficulties or who have lost lessons through absence. In addition, every Friday each teacher conducts personal conferences with the pupils of her own home room. Such guidance periods are strictly confidential; no visitors are permitted to attend them; even the principal of the school makes a point of not entering a room during the final hour on Friday.

The personal-guidance periods enable every home-room teacher to come into intimate contact with her pupils. Even less than usual the teacher and more the "counselor and friend," she gathers from every member of the faculty information about her own boys and girls concerning lapses in good conduct, the shirking of responsibility, scholastic losses due to illness, burdensome home duties, etc. In the guidance period there are no "lessons." Through friendly, intimate group conversation or personal interviews, new pupils are imbued with the ideals of the school—co-operation, courtesy, the shouldering of responsibility, and the like. Individual failure or success is brought out, and remedies or causes are stressed. During the time when affiliations with social clubs are being made or courses are being chosen, the topics of conference are hobbies, favorite studies, and immediate and deferred values of various occupations. Here, too, are considered various ethical problems associated with the school "code of honor"—sportsmanship, clean speech, truthfulness, etc. Correlation of the guidance period with civic responsibilities brings up such topics as the right attitude toward holding office in the Holmes Junior High School, the duties of leaders and followers, and the sacrifice involved in all co-operative endeavor. In short, the last period on Friday is the time for "direct moral guidance" par excellence and is tied up, as all guidance is, with the daily privileges and duties of the varying school lives of the pupils.

The last periods on Monday, Tuesday, and Thursday are reserved for the remedial groups, the civic organizations, and the enrichment, vocational, and recreational clubs, each teacher acting as sponsor for two and sometimes three of these groups.

Remedial guidance.—Remedial guidance, intimately associated with class work, is the practical agency for accomplishing one of the avowed purposes of the junior high school, namely, meeting the individual scholastic needs of boys and girls. The remedial groups are of three different classifications—the "restoratory," the "preventive," and the "opportunity" groups. All three parallel by grades the four major branches of the curriculum—English, science, mathematics, and languages. For example, remedial provisions for the second-semester children—the VII B

pupils—are as follows: VII B English restoratory group for conditioned and failed pupils; VII B English preventive group for pupils in danger of conditions; VII B English opportunity groups for pupils who have special lines of interest; and nine other groups of similar distinction, three for science, three for mathematics, and three for languages.

The restoratory and preventive groups are designed to guard against discouragement and other evils incident to retardation; they include in their membership, respectively, the pupils who were conditioned or failed in the preceding term and those who are in danger of condition or failure in the current term. Conducted largely as supervised-study classes with the minds of the individual pupils focused on restoration to good standing, the strictly remedial clubs, assisted by other remedial agencies, have reduced retardation more than 50 per cent.

The opportunity groups, correlating closely with the more strictly remedial groups, provide direction for pupils who have special duties to perform. For example, the activities of the opportunity groups in English include the preparation of assembly programs; rehearsals of formal or informal plays; conferences with pupil chairmen, with committees, and with club officers who desire direction in any phase of club activity; the supervision of groups in charge of department bulletin board; and the training of pupils to conduct classes in the absence of regular teachers or to give suitable aid to substitute teachers. In the opportunity period, too, are conferences with pupils whose English habits are poor, special conferences with children who are socially crude in manners or deportment, and interviews with parents who are willing to come when summoned. Through similar activities, opportunity groups in science, history, and mathematics operate along the lines of their departmental needs.

An explanation of the 50 per cent reduction in retardation involves three considerations. First, for the obvious reason that pupils need positive guidance in scholastic deficiencies, membership in the remedial groups is mandatory. The children are directed into the remedial work because they need to be there; on the recommendation of any of their teachers, they are placed in the way of

avoiding failure or condition. It should be said that this compulsion is about the only manifestation of obligatory attendance found in all of the activities of the school. Although the remedial work is mandatory, it not infrequently happens that a child volunteers to give up one of his optional social clubs because he feels the need of the help that may be found in an appropriate preventive group. The case of one little girl who asked to give up the Social Dancing Club because she felt the need of Spanish preventive work is not untypical. This case is indicative, too, of a condition that a visitor sees throughout the school, although not published or heralded, namely, that pupils are again and again induced to become their own critics; they pass judgment on their own behavior, their own scholarship, and their own share in the community life, and they discover their own opportunities for better participation in both the curricular and extra-curricular activities of the school.

Second, the remedial work reduces retardation because the pupils dislike to lose membership in the social and recreational clubs of their preference. Each child in the Holmes Junior High School is a member of three organizations, and under no circumstances may he be required to be a member of more than two of the strictly remedial groups; he is always privileged to enjoy membership in at least one of the selective recreational clubs. If it is necessary for a child to belong to only one restoratory club, he may choose two recreational clubs, perhaps the Art Collectors' Club as his first choice and the Spanish Club as his second choice. If he has no conditions and no immediate danger of them and is therefore free from all remedial obligations, he may be a member of the Glee Club as a third choice. This plan works both ways. Children in the remedial clubs are zealous in helping the sponsors find their weaknesses; self-diagnosis is very common; it does not take a careless speller long to discover that the judicious use of the dictionary will meet his needs; a pupil having difficulties with Spanish declensions soon learns that earnest application will relieve him of the necessity of membership in a Spanish preventive group and enable him to return to the recreational club of his choice. The universal testimony of the teachers is that the children in the Holmes Junior High School, heartily disliking conditions, soon

learn to anticipate and to ward off scholastic disaster, and, if "caught" and sent to preventive groups, they make vigorous efforts to return to good standing. It is estimated that only about 5 per cent of the students are at any one time in the remedial groups. During a semester the shifting in and out, which may take place at any time, brings to these groups perhaps 15 per cent of the children. In one sense, the entire seventeen hundred pupils are in the opportunity groups; they are all subject to the confidential home-room guidance on Friday.

Third, remedial work tends to prevent retardation because a strong IX A teacher in mathematics, for example, or in French, is assigned as sponsor for the restoratory IX B mathematics group or the IX B French group. In other words, pupils who are lagging in the second semester of any subject are privileged to do their remedial work under the one teacher who, if she had been their instructor in the first semester, might best have helped them lay a surer foundation.

The faculty has at least one other device for individual work of a remedial nature. One of the strongest teachers in the school is scheduled for restoratory work all day; that is, she does remedial work and nothing else. To her conferences come the most difficult cases—children who fail in spite of the efforts of the more general restoratory agencies.

A word must be said also about remedial work as applied to the physical needs of individuals. A group is organized for children who have defects of speech like stuttering or stammering; another for pupils who are badly nourished or anaemic; and other groups for crippled children. These are samples of a program which cares for boys and girls who, because of physical handicaps, are not privileged to participate in the activities regularly scheduled in the department of physical education, in the social clubs like singing, dramatics, and public speaking, or in hiking, tennis, swimming, and social dancing.

Civic guidance.—Guidance in citizenship is accomplished by the organization of the entire student body into what is called the Industrious Civic Union, so named by the pupils when the "school city" was established in 1921. The title is appropriate in view

of the wide range of civic activities. Seventeen hundred boys and girls, crowded into a building modern and new but originally planned for an elementary school of twelve hundred pupils, have, under wise leadership, rounded out an ingenious scheme of self-government. Through the regular home-room units, called "chapters" of the Industrious Civic Union, fifty-three in number, the pupils elect their representatives to the civic bodies known as the Council or the Administrative Committee and the Department of Public Works, the Department of Public Safety, the Department of Sanitation, and the Department of Social Welfare. During the home-room elections, as in all of the life of the school, two principles are of current emphasis: first, the significance of responsibility in choosing capable delegates to the governing bodies; second, the readiness of every individual, whether an elected officer or not, to give himself unreservedly to the public weal.

The Administrative Committee meets once a month to hear the reports from the various bureaus into which each department is subdivided and to offer constructive suggestions.

The Department of Public Works, responsible for the care of all property, functions through the Bureau of School Property, the Bureau of Neighborhood Property, and the Bureau of Personal Property. These bureaus, which are late developments, came into being when the pupils found that public sentiment needed to be created in their community for the preservation of three kinds of property and that a corps of vigilant officers with duties properly distributed ought to see that the rank and file of citizens respect such property. From the standpoint of guidance for citizenship, the actual care of property is of minor importance. The significant fact is that seventeen hundred boys and girls at the proper time and places are being taught habits altogether too much neglected by adults.

The Repair Club, which actively co-operates with the Department of Public Works, illustrates so well the principle that guides the origin and development of all of the organizations throughout the Holmes Junior High School that it may be explained here. As in the case of the recreational clubs, the needs of the community dictate the type of organization attempted. Those activities are

considered best which are not forced from above but which arise spontaneously in response to need. The Repair Club, a group of boys under the sponsorship of a teacher of manual training, is the result of a suggestion that there were many little jobs like repairing curtains or fixing desks in a big community like theirs which the boys themselves could attend to. The writer saw members of the Repair Club called in to restore a "dark curtain" which fell from its roller during a general assembly period. They climbed on step-ladders, fixed the curtain, and removed the debris while not so much as a single eye of the three hundred children in the room appeared to be turned in their direction. Citizens doing their duty in a normal way attract no attention.

The Department of Public Safety supervises traffic and institutes safety patrols for the protection of the pupils. It has a Bureau of Traffic, which operates both inside and outside of the building, a Bureau of Law and Order, and a Bureau of Fire, which supervises the fire drills. The department prepares fire-drill charts which are reproduced by the Blue Print Club and placed in each classroom, so that the entire school becomes familiar with the scheme.

The Department of Sanitation interests itself in the cleanliness of the school. To facilitate its work, the school is zoned, and bureaus of basement, corridor, classroom, and yard inspection are established. Through the awarding of banners for clean classrooms, rivalry is aroused. In each of these bureaus the "lieutenants" secure volunteer guards to aid in carrying on the work.

The Department of Social Welfare consists of the Bureau of Decoration, the Bureau of Publicity, and the Bureau of Social Welfare. The latter bureau was hard to launch. Its duties are largely in seeing that the various organizations co-operate in welcoming new pupils and in paying suitable attention to pupils who are in social need. For example, the fifty-three home-room representatives of this department are charged with the duty of making careful note of all absentees in their respective rooms. The Blue Print Club makes absentee cards. The Botany Club gives some of the flowers which it gathers so that the Bureau of Social Welfare may send them to every member of the school who is absent through illness. A representative in every class tele-

phones the assignments to the children who have missed them for some good reason.

The Bureau of Social Welfare also takes over the duties of helpers for the teachers. If a teacher is absent and no substitute appears, a lieutenant of the Bureau of Social Welfare in the room automatically assumes control of the class and conducts the lesson. If there is a substitute teacher, it is the duty of the lieutenant to help her in every way possible; in such an emergency he is the society's discipline officer. Another function performed by these officers is taking charge of tardiness. At the front entrance of the building there is a "late room," to which every tardy pupil reports at once. Still other duties of the various branches of the Department of Social Welfare are ushering at parents' meetings, promoting financial enterprises, and aiding the principal and the teachers in emergencies. In general, the civic organizations supply the leaders who automatically take charge of their groups when unusual and unexpected situations arise.

It might be inferred that the members of the civic clubs are the only children whose activities are guided toward citizenship. Such is not the case. The fact is that by many skilful devices the influence of every civic group—for that matter, of every club in the school—reaches beyond its own walls. The principle is that every organization shall extend its activities into the life of the school so far as possible. To reach the rank and file of the school citizenship, each civic organization and many of the social clubs have bulletin boards in conspicuous places, on which are displayed every manner of exhibits dealing with the club's interests. Under friendly rivalry, diligent and persistent care constantly shifts the displays, so that something fresh and interesting is ever available to draw the attention of passers-by. A second means of extending influence beyond committee walls are the public announcements, made by civic-club representatives or by members of the Public Speaking Club, at the four major assemblies which meet in various parts of the building the first fifteen minutes of the day. Especially valuable, the teachers think, are the addresses given by representative club members in the early assemblies of the year when the new VII A pupils are introduced to the various civic traditions

which are being established in the school. Obviously, the civic clubs are constantly in need of helpers, and, when occasion arises, such assistants are publicly announced and their names are posted on the appropriate bulletin board. In other ways which cannot be mentioned here, the ideal is to lead everyone into the civic service of the school.

Cultural guidance.—Membership in the remedial groups is mandatory; membership in the civic organizations is elective; membership in the more strictly social groups is selective; that is, each pupil, with certain reservations for priority rights, enters into the vocational, recreational, and enrichment clubs of his own choice. These clubs, which are designed to cover all sorts of needs and desires of a large student body, number more than fifty. Some, like the Dramatic Club, are cultural, offering opportunities to develop latent tastes. Others, like the Art Collectors' Club, are aesthetic and are sponsored by the departments of art and music and, in the case of aesthetic dancing, by the teachers of physical education. Still others, like the Camp Cookery Club, are of a more practical vocational nature and are sponsored by teachers of domestic science and manual arts. Others, like the English, the Spanish, and the French clubs, offer opportunities for extending and enriching the class work for the more ambitious and capable pupils. Before any new club may be formed, it must pass official tests showing (*a*) that it meets the personal needs of several children, (*b*) that it will add materially to the types of activities already in the school, (*c*) that it embodies some contribution toward training for efficient citizenship, (*d*) that it ministers to community needs, and (*e*) that it will not arouse political or religious animosity on the part of the parents.

It is apparent that free choice of the cultural clubs has to have certain limitations. For example, of one incoming VII A group, more than one hundred children expressed preference for the Glee Club. The unwisdom of children's unrestricted choices was indicated by the fact that many of them were overactuated by the word "glee"; they were looking for pure, unadulterated fun. Restriction of free selection is secured as follows. Membership in the clubs is limited. The older pupils of Grades IX B and IX A

are allowed first, second, and third choices. Then the VIII B and the VIII A pupils choose, followed by the VII B pupils. The incoming group, made up of the VII A pupils, is given no option because of the immaturity of its personnel; instead they meet in mass in the auditorium for one semester in three large clubs adapted to their needs—Monday, story-telling; Tuesday, music appreciation; and Thursday, travel. In addition to the stories, the Victrola demonstrations, and the motion pictures, the sponsors, supplementing the work of the Friday personal-guidance periods, try to introduce pupils to the aims and purposes of the new school. Moreover, upper-class representatives of all of the social clubs are given opportunities to display their work; speakers from the civic organizations lay the foundation for true Holmes citizenship, and it is said that the newcomers listen with profound attention to the venerable fourteen-year-old officials of the Industrious Civic Union.

As exemplifying the aims and activities of the purely cultural type, the undertakings of the Music Appreciation Club may be cited as representative. In order to open up to the children the field of music, the club carries on its work in a variety of ways, the chief of which are listed as follows:

Talks by the club sponsor on the evolution of music from ancient times to the present day, accompanied by excerpts from type compositions played on the Victrola.

Consideration of the varying tonal qualities of the voices of both men and women from the point of view of the solo voice, of duets, trios, quartets, and choruses. Pupils are made acquainted with the names of past and present "master singers."

A study of the orchestra as a medium of musical expression—the function of each individual instrument and the color contributed by each to the ensemble. The various choirs—string, wind, percussion, and brass—are studied, accenting the types of emotion voiced by each group. The tonal quality of all instruments is illustrated by solo passages, and students are made familiar with the peculiar timbre of each.

A study of national songs and dances as they evince national feeling. Reference is made to the psychologic, climatic, and historic background responsible for the characteristic rhythm and melody of each. Among the dances considered are the jig of Ireland, the hornpipe of England, the highland fling of Scotland, the tarantella of Italy, and the minuet of France.

Dances by the pupils in the national costumes as a visual aid to musical memory. The characteristic instruments of each country are also noted—

the castanets of Spain; the bagpipes of Scotland; and the dulcimers of Hungary.

Lessons in rhythm, melody, harmony, and simple musical forms are profusely illustrated on numerous instruments and by many compositions, like the funeral march and the military march. The characteristic rhythms of the waltz, polka, mazurka, minuet, gavotte, bolero, etc., are all made familiar to the pupils.

Memorization contests in which the themes or opening bars of famous compositions are played for recognition and placement by the pupils.

Story hours in which the plots of the operas are told by certain club members and illustrated on various instruments by other club members.

Attendance at children's symphony concerts given by the Philadelphia orchestra.

It must be understood that only glimpses into the life of the Holmes Junior High School have been possible in this article. However, these glimpses of the personal guidance, the remedial guidance, the civic guidance, and the cultural guidance are at least indicative of the principle which helps make a happy and successful school community, namely, meeting the individual needs of children through agencies which stress activity as the chief means of learning.

THE TIME ELEMENT IN HIGH SCHOOLS

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During the year 1922–23 an investigation was conducted for the purpose of finding out how much time high-school students spend in extra-class study on each of their school courses.[1] In order to obtain responses from a large and representative group of students, the conditions of obtaining data were simplified as much as possible. The results of the investigation are believed to have special significance for curricular problems.

Plan of the investigation.—Cities of all sizes from all parts of the United States were selected for participation. Slips were sent to the principals of the high schools in these cities with the request that their students fill in the blanks on the slips. The form of the slip was as follows:

To be filled in by the pupil:
School_____ Town_____
Grade (7, 8, 9, 10, 11, 12)_____ Length of class period_____
Is supervised study included in the class period?_____
Subjects studied:

(Underscore the subjects studied. Be specific, e.g., if you are studying mathematics, underscore both mathematics and also the branch of mathematics studied.)	Average number of minutes spent each day upon preparation outside of class:
Mathematics (first-year algebra, plane geometry, solid geometry, trigonometry, advanced algebra, _____)	
Science (general science, biology, botany, geology, physiography, physiology, chemistry, physics, _____)	
History (general history, ancient, medieval, modern, English, American, _____)	
English (composition, literature, _____)	
Language (Latin, French, Spanish, _____) (first year, second year, third year, fourth year, fifth year)	

[1] This investigation was conducted as a part of the general investigation of the American Classical League. Four students—V. Eleanor Anderson, E. S. Dunkel, H. F. Knowles, and E. A. Weinke—had an important part in conducting this investigation.

Accompanying the slips was a request that it be made plain to the students (1) that they were to state as accurately as possible the amount of time spent daily in studying each of their different subjects exclusive of the recitation, laboratory, or supervised-study periods, (2) that the responses would in no way affect the students' standings, and (3) that the students were not to sign their names to their responses. As soon as the blanks were filled in, the slips were collected and returned to the writer for tabulation.

General character of the results.—Responses were received from 177 schools, 34 of which conduct supervised study with periods of sixty minutes or more. These schools are located in forty-one different states and range in size from less than 50 students to over 5,000 students. All of the schools are public high schools. Approximately 85,000 students responded. Many of the replies were either incomplete or not clear. A total of 258,282 judgments of time expenditures for different subjects were tabulated; of these 54,406 came from schools conducting supervised study.

It is recognized that high-school students cannot estimate their time expenditures with great accuracy. It is believed, however, that their estimates are as likely to be correct for one subject as for another. There are at least two types of error which are probably fairly constant. One of these is the tendency to overstate the amount of time spent in study; the other is the tendency to state merely that a class period is spent on each subject. There are notable exceptions to each of these tendencies, because thousands of students assert that they spend no time in studying certain subjects, while other thousands assert that they spend fractional parts of periods on one or more of their courses.

The responses from each school were tabulated separately by subjects. There was an attempt to tabulate the students' time expenditures by regular intervals, as 0–14 minutes, 15–29 minutes, etc. It was soon found, however, that these intervals were concealing much of what it was desirable to know. For example, of the students who reported 0–14 minutes, practically all reported 0; and of those who reported 45-59 minutes, nearly all reported 45, and so on. Consequently, the following irregular intervals were selected for tabulation: 0–14 minutes, 15–29, 30–39, 40–49,

50–59, 60, 61–74, 75–89, 90–119, and 120 or more. As nearly all of the medians and averages fell within the equal intervals from 30 to 59 minutes, the irregularity of the other intervals did not cause great error in this respect. For the purposes of this article, combinations have been made into four intervals. The averages, modes, and medians were determined before the intervals were combined.

Discussion of the results.—For purposes of discussion, the results have been classified according to the size of the schools, according to the sections of the United States in which the schools are located, according to the different subjects of study, and according to whether or not the schools conduct supervised study. Also, the time expenditures in certain individual high schools have been studied.

1. *The effect of the size of a school on time expenditure.*—The schools which reported in this investigation were divided into five groups according to the number of students in attendance. These groups are as follows: 0–199, 200–499, 500–999, 1,000–1,499, and 1,500 or more. From fifteen to forty-nine schools fell into each group. When grouped in this manner, the schools are found to require almost exactly the same amount of time of the students. In the case of general science, for example, the range of time expenditure is from 39.3 minutes to 40.5 minutes with 8,755 students reporting. Although there are variations in the amount of time expended on the different subjects, no single rule holds for all sizes of school except that the size of the school makes little or no difference.

2. *Time expenditures in different sections of the United States.*—A representative number of schools reported from each of the following sections of the United States: New England, Middle Atlantic, South, Central West, Southwest, Northwest, Rockies, and Pacific Coast. The average amount of time expended in these different sections varies considerably.

As shown by Table I, the students in schools located in the South report lower time expenditures for most subjects than the students from any other section. There are, however, notable exceptions to this statement; for example, English XII[1] receives

[1] This was reported as fourth-year high-school English from the South.

more time in the South than in several other sections (Table IV). For each of the other years of English reported in Table I, the South is below the average. As the South is, on the whole, the lowest section in time expenditures, so the Central West, the Northwest, and the Pacific Coast are the highest sections. These sections stand high

TABLE I*

AVERAGE AMOUNT OF TIME IN MINUTES SPENT ON DIFFERENT SUBJECTS IN SCHOOLS LOCATED IN DIFFERENT SECTIONS OF THE UNITED STATES

COURSE	SECTION								AVERAGE OF ALL SECTIONS
	New England	Middle Atlantic	South	Central West	Southwest	Northwest	Rockies	Pacific Coast	
Algebra and geometry	43.6	44.1	42.5	47.5	43.7	45.5	46.2	46.9	46.5
General science, biology, chemistry, physics	40.8	40.9	42.3	44.4	47.5	44.5	41.5	45.0	42.2
Ancient history	42.0	40.7	41.9	45.9	43.4	47.2	47.8	40.8	43.3
Modern history	42.0	45.2	36.7	47.0	44.4	47.1	45.5	48.9	45.6
American history	44.9	46.4	43.4	48.1	48.6	45.1	48.3	51.6	46.5
Civics	36.8	39.7	35.6	45.0	43.2	41.0	36.3	41.7	40.0
English IX	40.9	41.7	40.0	44.7	44.4	41.5	45.2	43.5	42.6
English X	44.6	39.9	41.3	45.4	44.4	42.6	41.1	45.0	42.6
English XI	47.8	43.3	44.9	48.3	48.0	46.1	47.9	46.2	46.1
Latin I	52.5	51.4	45.6	52.2	55.1	62.3	51.6	56.3	51.9
Latin II	50.2	56.4	52.1	56.6	54.2	61.1	60.1	62.9	56.0
Latin III	62.9	60.0	57.4	56.6	57.7	61.6	54.5	61.3	59.9
Latin IV	68.8	74.4	58.8	63.2	65.4	65.4	69.1	60.0	64.7
French I	46.0	42.6	40.2	53.0	40.6	48.2	43.1	50.3	47.1
French II	46.4	49.5	40.4	54.3	48.6	51.4	47.2	50.5	47.7
French III	52.6	52.3	47.7	51.8	57.8	51.4	54.9	43.1	51.1
French IV	51.4	63.0	47.8	53.9	50.8	48.8	44.3	62.2	48.6
Spanish I	42.3	46.4	39.7	48.4	44.2	41.0	43.8	44.4	46.4
Spanish II	46.3	52.5	50.6	47.7	47.6	51.7	51.0	44.4	49.9
Commercial arithmetic	43.3	42.4	37.2	51.2	38.5	55.4	45.0	50.6	45.1
Stenography	61.5	57.4	47.1	55.3	40.3	65.4	45.4	44.4	56.1
Home economics	36.4	30.8	27.0	35.5	23.3	34.5	42.6	32.0	33.2

* No supervised-study schools are included in this table.

in nearly all of the forty school courses in which a comparison was made. The deviations from the average for each section for these forty courses are shown in Table II.

Sectional differences can be shown in still another manner. The percentages of students in each section who spend different amounts of time daily on their respective courses have been computed. By comparing the percentage of students who spend less

than thirty minutes a day on a given subject with the percentage of students who spend more than ninety minutes, an index of sectional expenditures of time is obtained. For example, in the Pacific Coast states, 7.6 per cent of the students spend less than thirty minutes on algebra, while 3.8 per cent of the students spend more than ninety minutes on the same subject; an index, 2.0, for this subject is found by dividing 7.6 by 3.8. Any section in which many students spend less than thirty minutes while few spend more than ninety minutes is obviously requiring much less work than another section in which few students spend less than thirty

TABLE II*

SUMMARY OF TIME EXPENDITURES IN DIFFERENT SECTIONS OF THE UNITED STATES

Section	Number of Pupil Responses	Number of Minutes above or below the National Average
New England	31,696	+0.35
Middle Atlantic	55,622	+0.50
South	19,286	−5.16
Central West	30,673	+2.21
Southwest	10,438	−0.20
Northwest	11,972	+1.82
Rockies	9,345	+1.00
Pacific Coast	19,364	+1.65
Total	188,396	.....

* No supervised-study schools are reported in this table.

minutes while many students spend more than ninety minutes. This kind of contrast can be found in the case of algebra, for which the South has 15 per cent of the students reporting an expenditure of less than thirty minutes and only 1.8 per cent of the students reporting more than ninety minutes. This gives the South an index of 8.3 as contrasted with the index of 2.0 for the Pacific Coast. High index numbers, which indicate relatively low expenditures of time, are found far more frequently for the South than for any other section. Although this condition does not hold for every year of each group of subjects, it does hold for each subject group—mathematics, science, history, English, foreign languages, commercial subjects, and home economics. No one section has a corre-

sponding monopoly on low index numbers, although the index numbers are, as a whole, considerably lower in the western sections than in the eastern sections.

These sectional differences seem even more significant when certain possible curriculums are selected for comparison as to time expenditures in different sections of the country. In Tables III and IV two possible years of work are compared with reference to average daily time requirements in the eight sections. According to Table III, students in the South spend twenty-five minutes less per day than students on the Pacific Coast and about twenty minutes less per day than students in the other western sections. Table IV shows less diversity, although sectional differences are marked here also.

TABLE III

AVERAGE DAILY TIME EXPENDITURES IN MINUTES ON TYPICAL FRESHMAN PROGRAM IN DIFFERENT SECTIONS OF THE UNITED STATES

Section	Algebra	Latin I	English IX	General Science	Total
New England	43.9	52.5	40.9	36.2	172.5
Middle Atlantic	44.6	51.4	41.7	37.4	175.1
South	42.5	45.6	40.0*	35.6	163.7
Central West	46.0	52.2	44.7	40.6	183.5
Southwest	42.9	55.1	44.4	43.0	185.4
Northwest	45.3	62.3	41.5	39.8	188.9
Rockies	47.7	51.6	45.2	39.0	183.5
Pacific Coast	49.7	56.3	43.5	40.0	189.5

* This is first-year high-school English.

TABLE IV

AVERAGE DAILY TIME EXPENDITURES IN MINUTES ON TYPICAL SENIOR PROGRAM IN DIFFERENT SECTIONS OF THE UNITED STATES

Section	English XII	Chemistry	American History	Latin IV	Total
New England	51.9	43.7	44.9	68.8	209.3
Middle Atlantic	43.4	43.9	46.4	74.4	208.1
South	51.3*	42.3	43.4	58.8	195.8
Central West	50.5	52.1	48.1	63.2	213.9
Southwest	55.7	49.7	48.6	65.4	219.4
Northwest	48.5	51.1	45.1	65.4	210.1
Rockies	48.5	44.1	48.3	69.1	210.0
Pacific Coast	47.9	49.3	51.6	60.0	208.8

* This is fourth-year high-school English.

3. *Time expenditures on different subjects of study.*—Reports of high-school students on their time expenditures indicate as clearly as such data can that great differences exist in the time requirements of different subjects. Certain subjects make slight demands; others make very heavy demands. This amounts to saying that certain high-school credits or units are far more easily earned than others.

Table V shows the time expenditures in the non-supervised-study schools. The most significant columns of this table are those which show the percentages of students who spend 0–29 minutes and 90 minutes or more and those which show the medians, modes, and averages. The medians and averages run closely parallel, although the averages are consistently higher. This is due to the fact that the upper limits of time expenditure are farther removed from the central tendency than are the lower limits; that is, every subject has at least a few devotees who spend about two hours daily on it.

An analysis of Table V shows that six subjects have medians and averages of less than 40—general science, biology, English VII, English VIII, home economics, and manual arts. Each of these subjects is either bimodal or has a mode of 30–39 or less. Five subjects have medians and averages of more than 50—Latin II, Latin III, Latin IV, Spanish IV, and stenography. Two of these subjects, Latin III and Latin IV, have modes of 60.

Another form of analyzing Table V consists of comparing the percentage of students who spend less than thirty minutes a day with the percentage of students who spend more than ninety minutes a day on each subject. More than 20 per cent of the students report an expenditure of less than thirty minutes a day on certain subjects, such as general science, biology, and civics, and less than 2 per cent report more than ninety minutes a day for the same subjects. In contrast with these low expenditures are the expenditures on Latin I to IV, French III, and Spanish IV, upon each of which less than 10 per cent of the students report that they spend less than thirty minutes a day. Over 10 per cent of the students spend more than ninety minutes a day on each of the following subjects: Latin II, Latin III, Latin IV, and stenography. Of the fifteen courses on which over 20 per cent of the students report that they

TABLE V

TIME EXPENDITURES BY SUBJECTS IN SCHOOLS WHICH DO NOT HAVE SUPERVISED STUDY

SUBJECT	NUMBER OF STUDENTS	PERCENTAGE OF STUDENTS SPENDING SPECIFIED NUMBER OF MINUTES				MEDIAN	MODE	AVERAGE
		0–29	30–59	60–89	90 or More			
Algebra	17,598	12.9	67.8	16.1	3.2	42.6	40–49	45.3
Advanced algebra	4,481	12.3	58.9	23.7	5.2	44.9	40–49	49.5
Plane geometry	13,070	14.5	64.6	17.4	3.4	42.7	40–49	46.7
Solid geometry	1,429	16.3	67.7	13.2	2.7	41.1	40–49	43.2
General science	9,522	27.0	62.8	9.1	1.2	36.8	30–39	39.2
Biology	6,257	23.4	67.3	8.1	1.2	38.1	30–39	39.4
Chemistry	4,881	12.2	64.5	18.9	4.3	44.3	40–49	46.6
Physics	5,166	15.6	62.2	18.4	3.7	43.5	40–49	45.2
General history	1,627	22.7	61.1	13.8	2.3	40.1	30–39	41.5
Ancient history	6,997	18.8	64.2	14.5	2.6	41.2	40–49	43.3
Medieval history	1,594	19.4	65.7	12.8	2.0	40.7	40–49	42.4
Modern history	4,824	14.9	64.3	18.0	2.8	42.5	40–49	45.6
English history	1,872	17.6	60.3	18.5	3.7	42.7	40–49	45.4
American history	8,974	13.9	62.9	19.2	3.9	43.7	40–49	46.5
Civics	4,536	25.7	61.6	11.5	1.2	38.2	30–39	40.0
English VII	605	26.7	65.5	6.7	1.0	36.4	30–39	38.9
English VIII	2,232	27.7	58.8	12.4	1.0	38.2	30–39	38.5
English IX	17,415	18.9	65.1	13.8	2.1	41.0	40–49	42.6
English X	15,789	17.4	66.5	13.9	2.1	39.2	40–49	42.6
English XI	11,561	13.7	63.9	18.6	3.8	44.1	40–49	46.1
English XII	7,265	11.7	62.8	20.4	5.0	44.2	40–49	47.6
Latin I	7,604	8.9	58.5	26.2	6.3	47.8	40–49	51.9
Latin II	5,247	6.5	50.7	32.1	10.8	52.7	40–49	56.0
Latin III	1,724	4.5	40.3	37.6	17.7	60.2	60	59.9
Latin IV	839	1.5	32.1	41.5	25.0	64.9	60	64.7
French I	4,312	13.6	60.8	21.9	3.7	43.9	40–49	47.1
French II	3,555	10.3	62.6	22.7	4.4	47.1	40–49	47.7
French III	1,388	7.4	61.0	24.5	7.2	47.0	40–49	51.1
French IV	292	11.6	59.1	23.4	6.0	47.0	40–49	48.6
Spanish I	3,514	15.3	66.4	15.9	2.3	44.8	40–49	46.4
Spanish II	2,385	8.1	59.8	24.8	7.3	46.2	40–49	49.9
Spanish III	672	12.4	60.5	23.6	3.4	45.2	40–49	49.7
Spanish IV	124	5.1	49.1	36.7	9.0	50.1	40–49	52.1
German I	415	17.9	56.5	24.5	1.0	39.8	30–39	43.1
German II	102	20.2	51.5	19.8	8.6	46.9	40–49	49.2
Commercial arithmetic	2,831	12.2	66.3	17.3	4.3	42.9	30–39	45.1
Stenography	2,044	11.4	43.8	26.0	18.9	50.1	40–49	56.1
Bookkeeping	1,782	28.1	46.6	17.1	8.3	42.1	30–39	44.0
Home economics	1,244	47.9	43.6	6.0	2.5	27.1	Bimodal	33.2
Agriculture	285	35.1	55.4	6.9	2.7	39.7	Bimodal	41.4
Manual arts	193	67.9	20.1	2.4	9.7	9.9	0–14	24.6

spend 60–89 minutes a day, twelve are foreign languages; the others are advanced algebra, English XII, and stenography.

By dividing the percentage of students who spend less than thirty minutes by the percentage of students who spend more than ninety minutes, subject index numbers were found as already mentioned in the discussion of sectional differences. These index numbers range from 0.06 for Latin IV to 27.7 for English VIII. The coefficient of correlation between these indexes and the averages for thirty-five subjects is $.82 \pm .04$ (Pearson formula). These indexes are, therefore, valuable in determining the relative difficulty of high-school subjects. By classifying these thirty-five subjects on the basis of the size of the index number, the arrangement shown in Table VI is obtained.

TABLE VI

THE RELATIVE DIFFICULTY OF CERTAIN HIGH-SCHOOL SUBJECTS AS DETERMINED BY THEIR INDEX NUMBERS

Very Difficult 0.06–2.0	Difficult 2.2–3.6	Moderately Difficult 3.7–5.3	Moderately Easy 6.0–9.9	Very Easy 19.5–27.7
Spanish II	American history	Modern history	General history	English VII
French III	Bookkeeping	English history	Ancient history	English VIII
French IV	Commercial arithmetic	Physics	Medieval history	Civics
Latin I	French II	Plane geometry	English IX	General science
Latin II	English XI	Algebra	English X	Biology
Latin III	English XII	French I	Spanish I	Home economics
Latin IV	Advanced algebra		Solid geometry	
Stenography			Manual training	

The relative time requirements of the different high-school curriculums can also be determined by a study of the averages for the different subjects. In a recent bulletin of the State Department of Education of Ohio,[1] a number of different high-school curriculums are formulated, such as the classical, commercial, home economics, etc. According to the data obtained from the high-school students, there are great differences in the amount of time required for these different curriculums. These differences are shown in Table VII. In making up this table, typical electives were selected with a view to showing the usual practice. The total time in hours for each of the four-year curriculums is shown in Table VIII.

[1] Walton B. Bliss, *Ohio High School Standards*. Columbus, Ohio: State Department of Education, 1923 [revised].

The differences between the study requirements of these curriculums may perhaps be explained by differences in the amount of laboratory time; two laboratory courses, chemistry and physics, are, however, included in the classical course. If we disregard the possible offset due to laboratory time, the students who pursue the classical curriculum spend 326.4 more hours than those who pursue the home economics curriculum. A comparison of the amount of time spent on the different subjects when the school conducts supervised

TABLE VII

THE TIME IN MINUTES REQUIRED DAILY BY THE DIFFERENT HIGH-SCHOOL CURRICULUMS

CURRICULUM	YEAR OF HIGH SCHOOL				Average
	I	II	III	IV	
Classical	177.9	187.5	198.0	200.8	191.1
Technical or scientific	159.6	174.4	184.7	175.6	173.6
General	150.4	153.9	185.4	183.8	168.4
Commercial	166.9	169.3	194.2	196.9	181.8
Home economics	152.8	158.5	173.0	171.2	163.9

TABLE VIII

THE TIME IN HOURS EXPENDED ON THE DIFFERENT FOUR-YEAR CURRICULUMS

Curriculum	Non-supervised Study Schools	Supervised-Study Schools
Classical	2,293.2	1,942.8
Technical or scientific	2,083.2	1,868.4
General	2,020.8	1,800.0
Commercial	2,181.6	1,927.2
Home economics	1,966.8	1,622.4

study shows that the difference in expenditures on the different curriculums persists even when the total amount of class and laboratory time is constant for all subjects. Indeed, the difference between the demands of the classical and the home economics curriculums is almost exactly the same regardless of whether supervised study is conducted or not.

As shown by Table IX, the number of hours required for extra-class study by the different subjects ranges from 73.8 to 194.1 in the schools which do not have supervised study. The history

courses require an average of 133 hours and English 132 hours a year. If the school year consists of 180 days and the recitation is forty-five minutes in length, 135 hours are spent in recitation in each course in one year. By combining the recitation time and the study time for either history or English, we have a total of 265 to 270 hours as a year's requirement. This amount of time is much less than the saving in time of the students who elect

TABLE IX

THE NUMBER OF HOURS REQUIRED PER YEAR OF 180 DAYS IN THE DIFFERENT SCHOOL SUBJECTS

Subject	Without Supervised Study	With Supervised Study	Subject	Without Supervised Study	With Supervised Study
Algebra	135.9	121.2	Latin I	155.7	135.6
Advanced algebra	148.5	140.7	Latin II	168.0	144.3
Plane geometry	140.1	120.6	Latin III	179.7	148.5
Solid geometry	129.6	125.1	Latin IV	194.1	150.9
General science	117.6	103.8	French I	141.3	128.7
Biology	118.2	103.5	French II	143.1	129.9
Chemistry	139.8	113.7	French III	153.3	120.6
Physics	135.6	115.2	French IV	145.8	117.3
General history	124.5	102.0	Spanish I	139.2	125.7
Ancient history	129.9	116.4	Spanish II	149.7	132.0
Medieval history	127.2	115.2	Spanish III	149.1	121.8
Modern history	136.8	125.4	Spanish IV	156.3	144.9
English history	136.2	91.5	German I	129.3	.....
American history	139.5	125.1	German II	147.6	.....
Civics	120.0	115.8	Commercial arithmetic	135.3	129.9
English VII	116.7	98.7	Stenography	168.3	123.0
English VIII	115.5	110.7	Bookkeeping	132.0	121.5
English IX	127.8	118.5	Home economics	99.6	46.8
English X	127.8	115.2	Manual arts	73.8	.....
English XI	138.3	124.5	Agriculture	124.2	118.2
English XII	142.8	130.8			

the home economics curriculum instead of the classical. A student who elects the home economics curriculum could, therefore, do an additional year of work in either English or history in less than the amount of time saved by pursuing a curriculum which consumes comparatively little study time. This statement is true whether or not supervised study is conducted.

4. *The effect of supervised study on time expenditure.*—The amount of time spent in extra-class study on each subject in schools

which conduct supervised study is also shown in Table IX. Students in supervised-study schools spend about one hour more per day in recitation than students in other schools. It might be supposed, therefore, that the amount of extra-class studying done by them would be an hour less daily than that of other students. One finds, however, very few subjects on which students in supervised-study schools spend ten minutes less than students in schools in which study is not supervised. If a student carries four subjects, his expenditures are only about twenty to thirty-five minutes less

TABLE X

AVERAGE DAILY TIME EXPENDITURES IN MINUTES IN INDIVIDUAL SCHOOLS

School	Number of Students Enrolled	Length of Class Period in Minutes	Algebra	Plane Geometry	General Science	American History	English IV	Latin III
Schools with supervised study:								
1	450	60	35.3	35.0	32.9	37.1	32.0	.....
2	600	70	32.7	28.3	19.1	30.0	30.7	29.3
3	800	60	61.6	46.2	46.2	54.6	50.9	*
4	1,040	60	47.8	55.5	39.0	57.1	54.4	57.4
5	370	60	27.2	47.4	.....	36.2	56.1	.....
Schools in the South:								
1	75	40	37.0	.....	37.8	38.6	44.3	60.0
2	550	40	52.8	46.7	.....	46.9	60.5	60.8
3	120	40	41.1	43.5	41.0	35.0	48.3	47.3
4	700	45	35.0	34.2	35.0	35.0	.....	54.8
Schools on the Pacific Coast:								
1	537	40	53.8	39.3	.....	50.0	44.2	55.0
2	1,040	45	45.1	48.0	.....	44.4	63.0	55.5

* This school reported no Latin for the third year; Latin I in this school had an average of 62.7 minutes.

in a supervised-study school than in a school in which study is not formally supervised; that is, the lengthened period of supervised study is not reflected by an equal effect on the students' expenditure of time out of class. This is, of course, no indictment of supervised study. It may be that such a form of lesson procedure enables the teacher to interest students and spur them to greater effort than they would otherwise exert. It may be that the students study much more intelligently and that they are, as a consequence, willing to study longer than when unsupervised. The data show at least that students who attend schools in which supervised

study is conducted report somewhat greater total expenditures of time than students who attend non-supervised-study schools in which the class periods are only forty or forty-five minutes in length.

5. *Time expenditures in individual schools.*—Four types of comparison will be made in this division: (1) comparisons of individual schools in different sections of the United States; (2) comparisons of schools within certain sections, (3) comparisons of schools which conduct supervised study with those which do not, and (4) comparisons of expenditures of time on different subjects within certain schools. Table X contains the data for this part of the discussion.

Schools from the South and the Pacific Coast have been selected for the purpose of comparing individual schools of different sections of the United States. These sections were selected because many schools from each of them have low and high time requirements, respectively. So consistent are the two sections in this respect that it is difficult to find a single Pacific Coast school the averages of which are not higher than those of any southern school. The third southern school, for example, exceeds the first Pacific Coast school about 10 per cent in expenditures on plane geometry and English IV, but in the case of algebra, American history, and Latin III the balance turns toward the Pacific Coast school to the extent of about 20 per cent. The second southern school exceeds the second Pacific Coast school in algebra, American history, and Latin III. It is far easier, however, to find in these sections schools the differences between which are represented by algebra and American history in the fourth southern school and the first Pacific Coast school; the differences in each of these two subjects give the Pacific Coast school an excess of about 50 per cent. Comparisons could be made by selecting schools of sections between which the differences are less, but such comparisons would not be crucial. The comparisons made show that even in the case of widely different sections individual schools, such as the second southern school and the second Pacific Coast school, vary sufficiently from sectional practice to obliterate the differences between sectional averages shown in Table I.

The data in Table X show also intrasectional variations. The second southern school reports for algebra an expenditure which is 25 per cent greater than the expenditures of the other three southern schools included in Table X. Similar variations exist for American history and English IV. In the case of both plane geometry and Latin III one southern school has nearly the same average as the second southern school. With the exception of Latin III, there are for the Pacific Coast schools similar variations in the case of each subject. Apart from these atypical schools, schools of these two sections approximate the sectional averages shown in Table I. Likewise, all sections contain a very small number of schools which vary in many different subjects from the sectional averages, although the sectional averages represent fairly the time expenditures in nearly every subject in nearly every school.

A comparison of schools which conduct supervised study with those which do not is provided by Table X. It can be seen that a southwestern school, the third supervised-study school, makes approximately as great time requirements as the second southern school, which is much above the average for the South. Also, the same supervised-study school exceeds both Pacific Coast schools in algebra and American history. If the fourth supervised-study school, which is located in the Rockies, is compared with the first, third, and fourth southern schools, the time requirements of the supervised-study school are found to be far greater than those of the southern schools. A student who pursues algebra and general science in the third supervised-study school spends from 20 to 70 per cent more time in extra-class study and 50 per cent more time in class work than a student in the first southern school. The extra-class expenditures of students in the second supervised-study school seem to show the effect of a class period longer than that of the other supervised-study schools. It can be seen by referring to Table X that there are greater variations in time expenditures in the supervised-study schools than in the non-supervised-study schools. No reason for this fact can be given, but it may be suggested that it results from greater variability in the technique of supervised study than in the technique employed in other schools.

It is often said that certain schools are predominantly English or science or Latin in their time requirements and general emphasis. Table X shows that there is justification for this supposition. It is to be remembered, however, that these schools are somewhat atypical in this respect. The first southern school illustrates the tendency to emphasize a single subject, although English IV also stands well above the other subjects. The second supervised-study school illustrates the differences in the demands of the first-year subject, general science, and of the other subjects of the same year or later years; in this school other subjects are receiving about 50 per cent more time than general science. The variations in the averages of algebra and plane geometry in the fifth supervised-study school and in the first Pacific Coast school show that marked differences in time expenditures are sometimes departmental characteristics. In contrast with such cases as those shown in Table X, the usual practice is found to be much more uniform for most subjects. As shown by Table V, differences in time requirements are fairly constant; that is, the subjects which have been included in the "easy" lists in Table VI receive relatively small amounts of time in nearly all schools, while history, chemistry, physics, mathematics, and English maintain fairly constant and nearly equal averages in individual schools. Table VI shows that most high-school departments are represented in both the "easy" and the "difficult" lists of subjects. In general practice it appears, therefore, that differences in time requirements are found within departments as well as between different departments.

Conclusions.—In the course of this investigation, the replies of a large number of students have been studied in order to find out the amount of time which they expend on different subjects. The findings indicate that wide variations in time expenditure exist within each department and between different departments. The variations in time expenditure between schools of different sizes are negligible. Sectional variations, are, however, considerable, the greatest of these being between the reports from the South and the Central West, the variation amounting to approximately thirty minutes a day for students who are pursuing four subjects. The difference in a four-year course at this rate amounts to more

than enough time to enable a student to pursue a year's work in any department of the high school.

The students' estimates show clearly that certain subjects are more expensive in time than others. The differences in the average amount of time spent on different subjects and in different years of the same subjects are sufficient to enable a student whose objective is simply a high-school diploma to make a great saving in time by carefully selecting his courses. It appears that a student who pursues a certain curriculum, such as home economics, might earn one or more units of work in addition to the requirements of the curriculum without spending any more time than the college-preparatory student normally spends on a traditional curriculum. It would be a serious mistake to increase the amount of time required by a fairly easy but useful course solely to make it as time-consuming as a more rigorous course. Still, it is difficult to prevent large numbers of students from electing courses which require little time, unless the amounts of time required by different curriculums are equated or certain valuable and rigorous subjects prescribed for all students. For example, it seems clear that foreign language, particularly Latin, has a reputation for requiring more time than other subjects; unless these time-consuming courses are required or made very attractive or given obvious and indispensable values, they cannot meet the competition of other courses. Indeed, the foreign languages cannot meet the competition among themselves. Many students, unless restrained, would attempt to save time and effort by electing only a year of each of three languages to fulfil a three-year requirement. Also, many students would postpone a final unit of foreign-language work until their last year and then elect a freshman language course in which much less time would be required than in courses designed for Seniors. The desirability of restraining students from electing only the elementary courses in each department is emphasized by the variations in time requirements in the successive years of the sequential courses in other departments as well as in the foreign-language courses.

Unless supervised study produces stronger students than unsupervised study, it is a source of great waste for students as well as teachers. The present investigation indicates that the students

who attend schools which conduct supervised study spend several hundred hours more on their four-year courses than the students attending schools which do not have supervised study. The effect of the alleged increase of time should be measurable in terms of college standings, standardized tests, or an obvious increase in interest and efficiency. Supervised study is, of course, not generally designed to decrease the amount of the students' work; it aims instead to improve the quality of work. Its aim may be accomplished partly in a willingness on the part of students to work more than formerly; if so, the data here presented support supervised study.

Time expenditures in different high schools in different sections of the country indicate that certain schools are attempting to accomplish very much more than others. Differences of this sort appear within sections as well as between different sections. Also, a number of schools were found in which certain curriculums are emphasized more than in the average school, while other curriculums are receiving less than the average time. If such conditions actually exist, there is a strong indication that a more just equating of time is desirable in order to strengthen departments which are now weak.

It is to be recognized that many of the implications of the foregoing discussion are dangerous, for, as Belloc says, "Men having accumulated a body of statistics on any factor of a problem will draw their conclusions as though no other factors existed."[1] It is believed, however, that administrators, in their attempts to standardize the secondary-school unit, will find the data and discussion here presented suggestive and in some degree valuable.

[1] Hillaire Belloc, "On Contemporary Stupidity," *Yale Review*, XIII (October, 1923), 111.

SUPERVISED STUDY IN NATURAL SCIENCE

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This article, the third of a series on supervised study, assumes that supervised study in science has as its purpose the effective training of the individual student in correct study-attitudes and study-habits by which he may come to a thorough understanding of certain science phenomena and science concepts.

The principal activities of the student through which he develops proper habits of study in the realm of science are (1) listening to the spoken word, (2) reading, (3) interpreting diagrams and pictures, (4) interpreting observed phenomena in the laboratory or outside of the classroom, (5) organizing knowledge, and (6) oral and written expression. All of these activities are forms of individual study and require careful, directed supervision. The success of the training through these activities depends on the organization of the subject-matter and the teaching technique employed.

The organization of the science courses in the University High School of the University of Chicago is such that each course is a series of teaching units or major problems for investigation. The first two units of each science course offered are here given as illustrations:

Science I (elementary physical science)
1. The earth on which we live
2. How changes of weather are explained

Science II (elementary biological science)
1. The world of living things
2. The cell-nature of living things

Advanced biology
1. The cell as the basis of life
2. Specialization and organization of cells in higher forms of life

Physics
1. Molecular forces and motions
2. Force and motion

Chemistry
1. The nature of chemical change
2. Oxidation

It will be observed from the unit titles that each unit represents a closely related series of science phenomena and facts, the interrelationships of which give meaning to an important science concept. In general, the central theme of the unit is an important principle or concept of science, the descriptive factual material being included as the medium through which the student comes to a clear understanding of the fundamental concept.

TABLE I

SCHEME OF INSTRUCTIONAL PROCEDURE

Learning Process	Classroom Technique*	Student Activity Involved	Method of Testing Results
Stimulus, motivation, or seeing the problem	Exploration or pretest (1) Review of previous work Recall of experiences pertinent to unit	Discussion and written work	Questions and exercises
	Preview (1) Teacher's sketch of unit—15- to 30-minute talk with simple demonstrations	Listening, observing, taking notes	Written or oral composition on preview
Study, reflection, or solving the problem	Individual study or assimilation (5–15)	Reading Extensive Intensive Experimentation Field trips Drawing Notebook work	Oral quizzes Written tests Composition True-false tests Completion tests Exercises—graphs, drawing, problems Summaries Reports on experiments Student demonstration before class Discussion before class
Reaction, application, or use of knowledge	Organization (1)	Preparation of outline, summary, or syllabus of unit	(The activity is the test)
	Recitation (1–2)	Oral or written recitation Group discussion	(The activity is the test)
	Interpretation of related problems (1) (optional)		Interpretation of new related problems

* The numbers in parentheses suggest the approximate number of periods to be given to the various steps.

The scheme of instructional procedure shown in Table I embodies the essential features of the classroom technique in natural science. This scheme comprises only the required work for each unit.

Students who complete the required work of a unit ahead of their class are furnished with additional exercises. They may, if they prefer, select supplementary projects for additional work. This plan meets the individual differences in ability and interest which develop during the year. Every student is kept up to his maximum effort in the classroom. The number and nature of the

independent projects pursued are considered an excellent index of the interest, the spirit of investigation, and the study-habits developed by the required work.

The technique employed and the supervision of individual study in the natural-science department will be more clearly understood by reference to the procedure in a given unit. The general procedure here outlined is followed in all natural-science courses.

Let us select for illustration the second unit of the course in chemistry, namely, "Oxidation." The central thought of this unit is the present chemical idea concerning the combination of oxygen with different materials and its importance in everyday life.

OUTLINE OF UNIT ON OXIDATION

1. The early ideas of rusting and burning which led to a knowledge of the rôle of oxygen in these chemical changes
2. Present methods of obtaining oxygen, the element which is common to all oxidation changes, for purposes of studying its characteristics
3. The physical and chemical characteristics of oxygen which explain different forms of oxidation
4. The modern view of oxidation changes
   a) Action of air and "pure" oxygen on metals—basic nature of oxides
   b) Action of air and "pure" oxygen on non-metals—acidic nature of oxides
   c) Decay of organic materials
   d) Oxidation in living organisms
   e) Spontaneous combustion
   f) Burning (complete and incomplete)
      (1) Ordinary burning of fuels
      (2) Oxyhydrogen and oxyacetylene flames
   g) Explosions involving oxygen, such as dust and mine explosions
5. Summary—the cycle of oxygen and carbon dioxide in nature

Exploration.—At the outset of the study of a unit, a pretest is given to the class. This serves two important purposes. First, it recalls for the student, through the individual performance of the exercises of the test, previously gained experiences and knowledge pertinent to the understanding of the unit. Second, it serves as an inventory or diagnostic measure of the student's intellectual background.

In the interest of clearness it will be helpful to present here the pretest given on the unit under discussion.

1. What did Priestley prove about the red rust of mercury?
2. What did Lavoisier show about the nature of oxygen, the common element in all oxidation changes?
3. List ten materials which contain oxygen. Opposite each indicate, in a word, the condition or conditions necessary to obtain oxygen from the material.
4. In two parallel columns headed "Physical" and "Chemical" give as many characteristics of oxygen as you know.
5. State the ways in which oxygen is of importance to you.
6. What percentage of the air is oxygen? Why does the amount of oxygen in the air remain nearly constant?
7. Give the similarities of and the differences between rusting and burning.

The results of the pretest on oxidation, given to a class of twenty-seven students, are shown in Table II. The following conclusions are evident. (1) The class requires considerable study to understand fully the unit concept. It is conceivable—even probable—that a chemistry class composed of students who have pursued general science and other science courses may show such an understanding of the unit that little instruction is necessary. (2) Students C, K, and M need special attention in the case of this unit. (3) The subject-matter referred to in Questions 3, 4, 6, 5, 7, 2, and 1 requires attention, during individual supervised study, in the order mentioned. Of course, these phases of the subject-matter are not of equal importance in the unit. (4) Students N, O, and P should complete the unit ahead of the class and spend their extra time on additional exercises or supplementary projects. (5) The work of Priestley and Lavoisier, included in the reading on the previous unit, was not thoroughly understood in the light of their contributions to the chemistry of oxidation.

In general, the pretest is nothing more than a physician's preliminary diagnosis of his patient, and, as such, it reveals the preliminary treatment which the individual requires.

Preview.—On the day following the pretest, the class is given a preview of the new unit in a fifteen- to thirty-minute informal lecture, with a few simple demonstrations. This preview has three important purposes: (1) it gives a sketch of the unit in such form that the student may see the interrelationships of the detailed subject-matter to be studied rather than think of the subject-matter as isolated facts; (2) it raises worth-while questions in the

minds of the students and thus motivates the study, furnishing, as it does, the foundation on which the student may build the structure of the unit concept; and (3) it provides opportunity for the careful supervision of listening to the spoken word, taking notes, and observing demonstrations.

TABLE II

RESULTS OF PRETEST ON OXIDATION*

STUDENT	EXERCISE							TOTAL		
	1	2	3	4	5	6	7	*s*	*u*	*o*
A	*u*	*s*	*u*	*s*	*u*	*u*	*u*	2	5	0
B	*u*	*u*	*s*	*s*	*u*	*u*	*s*	3	4	0
C	*u*	*o*	*u*	*u*	*s*	*o*	*u*	1	4	2
D	*s*	*u*	*s*	*u*	*s*	*u*	*s*	4	3	0
E	*u*	*o*	*u*	*u*	*s*	*s*	*s*	3	3	1
F	*u*	*u*	*u*	*s*	*s*	*s*	*s*	4	3	0
G	*u*	*s*	*u*	*u*	*u*	*s*	*u*	2	5	0
H	*u*	*u*	*u*	*s*	*u*	*o*	*s*	2	4	1
I	*s*	*s*	*o*	*u*	*u*	*u*	*s*	3	3	1
J	*s*	*s*	*o*	*u*	*u*	*s*	*s*	4	2	1
K	*o*	*u*	*o*	*u*	*s*	*u*	*u*	1	4	2
L	*s*	*u*	*o*	*u*	*u*	*s*	*u*	2	4	1
M	*s*	*u*	*o*	*u*	*u*	*u*	*u*	1	5	1
N	*s*	*u*	*u*	*s*	*s*	*s*	*s*	5	2	0
O	*s*	*s*	*u*	*u*	*s*	*s*	*s*	5	2	0
P	*s*	*s*	*u*	*s*	*u*	*s*	*s*	5	2	0
Q	*o*	*s*	*u*	*u*	*s*	*u*	*u*	2	4	1
R	*o*	*s*	*u*	*u*	*s*	*u*	*s*	3	3	1
S	*o*	*s*	*u*	*s*	*u*	*u*	*u*	2	4	1
T	*o*	*s*	*u*	*s*	*u*	*s*	*s*	4	2	1
U	*s*	*s*	*o*	*u*	*s*	*u*	*s*	4	2	1
V	*s*	*u*	*o*	*u*	*s*	*u*	*u*	2	4	1
W	*s*	*u*	*u*	*u*	*s*	*u*	*u*	2	5	0
X	*s*	*s*	*u*	*u*	*u*	*u*	*u*	2	5	0
Y	*s*	*s*	*u*	*u*	*u*	*u*	*u*	2	5	0
Z	*s*	*s*	*u*	*s*	*u*	*u*	*u*	3	4	0
A′	*s*	*u*	*o*	*o*	*u*	*s*	*u*	2	3	2
Number of *s*'s	15	14	2	9	12	10	13	75	.....	.....
Number of *u*'s	7	11	17	17	15	15	14	.....	96	.....
Number of *o*'s	5	2	8	1	0	2	0	.....	.....	18

* *s* indicates a fair to good response; *u* indicates an unsatisfactory response; *o* indicates that the exercise was not attempted.

During the preview the teacher is ever alert to have the attention of every student. To accomplish this, it is imperative that the students spend the time in listening rather than in taking voluminous notes and losing the chain of thought. Early in a course—for the first few units—it is the teacher's duty to supervise the activities involved until the students learn how to listen, how to observe demonstrations, and how to take notes on a lecture.

To this end careful directions are given concerning the organization of lectures and note-taking. The notes taken are handed in for diagnosis, and individual conferences follow where necessary. It should be said here that training in catching and holding the thread of a lecture may well require that no notes be taken on a number of unit previews during the year.

When the members of the class feel satisfied that they understand fully the preview of a unit, they are required to write the story in their best English. The test is direct evidence of the student's attainment in the activities involved. As such, it furnishes a concrete basis for the criticism and supervision of the study-habits involved. The test is also an excellent index of the teacher's ability to present clearly and forcibly the story of the unit.

Another value of the test is the opportunity which it provides for supervising the written work of the student. It is assumed in the natural-science department that the test is satisfactory only when the following requirements are fulfilled; (1) it must show a thorough grasp of the story presented by the teacher; (2) it must develop the story in a sequential manner; (3) it must be properly paragraphed; (4) it must be written neatly in good English.

Tests on the preview which do not meet the requirements of good English are rewritten after supervisory conferences with the students. If, however, the tests do not meet the first and second requirements, it is evident that the teacher should find time to repeat the preview for the students submitting unsatisfactory tests. In the freshman science classes the preview tests are sent to the English instructor after they have met the first and second requirements. The compositions are then used as the content material for supervision in English composition.

Assimilation.—We come now to the individual-study stage of the classroom technique during which the students may spend from five to fifteen class periods assimilating the subject-matter and the experiences which give meaning to, and understanding of, the unit concept or the central theme of the unit. It is during this stage that the greatest opportunity for supervising study-attitudes and study-habits is present, because here the instructor can nearly always deal with the individual student.

The guidance of the students through this stage in such a way that every student gives his best intellectual effort is a real test of the instructor's ability to plan instruction. His success in the constant and proper supervision of study-attitudes and study-habits is a measure of his ability to understand the psychology of boys and girls and lead them to their highest possible attainments in attitudes, habits, ideals, interests, and intellectual perspectives.

Two plans represent the usual procedure at the beginning of the individual-study stage in the natural-science classes of the University High School. These are varied in different units, and a combination of the plans is often used. The first plan places a guidance sheet before the students which gives definite directions for the various activities in the assimilation period. The second plan is essentially a half-hour round-table discussion in which the group decides on a plan of action. The plan of action takes form in the statement of a series of investigations to be carried out by the individual members of the group and the definite suggestions of the instructor concerning the more detailed procedure necessary to a clear understanding of the unit.

Thus, in the unit on oxidation, the students surveyed, at the outset of the assimilation stage, the questions in their minds and the points left unanswered in the pretest and preview. Together the members of the class formulated the best procedure for their study. Without giving space to the numerous questions which the class raised, it will be worth while to set down the principal problems which grew out of the half-hour discussion. They are stated here in the simple words used in the group discussion.

1. Just what did Priestley and Lavoisier do and prove concerning oxidation?

2. Do all materials containing oxygen give it off when heated?

3. How can we get oxygen from different materials so that we can work with it in the laboratory?

4. How and why does oxygen differ from air?

5. How do "they" get oxygen from the air and from water for commercial purposes? (Liquid air and electrolysis of water.)

6. Knowing the characteristics of oxygen and the nature of chemical change, how do you explain rusting, decay of vegetable and animal material, spontaneous combustion, complete and incomplete burning of gas and other fuels, oxidation in living organisms, explosions due to oxygen, and the nearly constant percentage of oxygen in the air?

The class decided to study oxidation in the order of the ideas stated in the problems. Accordingly, they began by reading about the work of Priestley and Lavoisier as treated in their textbooks. Having satisfied themselves that they thoroughly understood what Priestley and Lavoisier did, they progressed to the second problem.

Printed directions were given for the laboratory work necessary in connection with the second problem. This work included the heating of fifteen different oxygen compounds. The results of the experimentation, it was decided, could best be given in tabular form. Following the table, the word equation for each chemical change which took place was recorded. To complete the table and to write the word equations required that the students make use of their textbooks as references.

Having satisfactorily answered the second problem in a scientific way, the students proceeded to look up the different oxygen sources best fitted for preparing the gas in the laboratory and to decide on the materials to be used as well as the method of collecting the gas. At the same time—it had been previously decided to combine the third and fourth problems in the laboratory phase of study—they determined the experiments which they would carry out with the gas. Complete reports on the experiments were required. Subsequent reading rounded out the answers.

The fifth and sixth problems were largely reading problems accompanied by a series of class demonstrations and individually performed laboratory experiments. The class demonstrations included (1) electrolysis of water, (2) oxyhydrogen blow torch for cutting metals and welding, (3) liquid air, its composition and properties, (4) Davy safety lamp, (5) spontaneous combustion of paper soaked in a solution of phosphorus, (6) explosive mixtures containing oxygen, (7) production of carbon dioxide by decaying wood, and (8) production and properties of ozone. The individual experiments here and in the other problems of the unit were the natural result of curiosity to understand the statements met in the reading phase of the study.

Having in mind the general plan of the work and the various activities included during the assimilation stage of the teaching unit, let us refer to a few outstanding principles of conducting the study and of testing the results of the study.

The individualized plan of the study-period is essential to the proper diagnosis and supervision of study-habits. To a degree this assumes that every student may progress at his own rate. Further, it does not mean that definite days should be set aside for laboratory work, reading, demonstration, and the other activities of the assimilative period.

The various forms of testing used in natural science are not for the purpose of obtaining marks or grades. They are nothing more nor less than frequent inventories of the progress made. As such, they reveal to the student and the teacher the satisfactory understanding of the assimilative material or the need for further study and teaching until complete understanding is attained. The errors are the symptoms of the intellectual ailments which require supervisory treatment.

Enough has been said concerning the supervision of listening to the spoken word. Similar direction and supervision are given to all demonstrations and short presentations carried on during the assimilation stage.

The reading phase of the assimilation is of particular significance in supervised study because it offers so many ways of diagnosing the student's study-habits. A few questions concerning intensive reading in science will show the types of test which are applied in the diagnosis.

1. Does the student read with serious sustained application?
2. Can the student give orally, or in written form, a coherent statement of the gist of the subject-matter read?
3. Can the student write in his own words and in a single statement the major idea contained in a paragraph?
4. Does the student understand the meaning of the new scientific terms used?
5. Does the student see clearly the cause and effect relationships?
6. Does the student make cross-references as indicated in science textbooks?
7. Does the student associate the factual subject-matter with the unit concept?

Such questions directly suggest the supervisory duties of the teacher of science. It is his business to test the student's reading by means of appropriate tests. The methods of testing are indi-

cated in the scheme of instructional procedure. When the difficulty is determined, it is relatively easy to assist the student and create the proper study-attitude.

Careful observation and interpretation of the diagrams and pictures used in a text to develop the subject-matter require supervision. Direct testing in the form of oral or written interpretations of diagrams and in the form of reproductions of diagrams gives tangible diagnostic evidence of the student's attitudes and habits in this activity. The class discussion and the individual conferences on the results of the test and on the purpose and value of such diagrams and pictures are means of supervision in establishing correct study-habits. The diagrams in the laboratory guides also illustrate the points stated. There is, however, in connection with the latter diagrams the additional practical tests of setting up the apparatus in the laboratory and submitting it for inspection before the experiment is started. In this connection it should be stated that every student should be required to make to scale several sectional drawings of apparatus used during the year.

A fundamental activity in the study of science is involved in the laboratory work. It is here that the student has the opportunity to observe and interpret science phenomena for himself, that he feels himself the investigator, and that he looks upon the study as real, interesting, and worth while. Because of this attitude on the part of the student, the instructor finds in the laboratory work an excellent opportunity to diagnose the individual student's natural inclinations toward study. Does he observe accurately the conditions of the experiment? Does he see all of the phenomena in the correct light? Can he apply himself to the problem? Does he become lost in the details of the experiment and fail to see the relation of the experiment to the problem? Can he work independently and produce results? Has he an attitude of inquiry and investigation? Does he read through the entire experiment before beginning it and thus see the individual parts in their proper relation and save time by efficient management in carrying it forward?

These are some of the diagnostic measures which should be applied. Individual assistance in correcting poor attitudes and

habits of observation, interpretation, and application is the teacher's primary duty. He has little time for doing clerical or supply-man jobs if his supervision during laboratory work is adequate.

The organization of knowledge and oral and written expression are other activities mentioned as of importance in developing proper habits of study in science. The reports on experiments, student demonstrations before the class, the various written and oral tests employed, and the discussions by students offer means of determining the individual student's difficulties. Individual discussion with the student helps him to see why his observation, reading, experimentation, interpretation, organization, and use of English require careful attention and how he may proceed to establish better habits.

With the plan of procedure and the attitude throughout the assimilation period established, individual study is easily carried on even with a large class. Students seek the help of the instructor, go to the laboratory during the reading phase, consult the dictionary, write reports, and carry on all of the activities involved in the same way that an investigator works in his study and laboratory.[1]

Organization.—When the tests used in the assimilation period show that the student thoroughly understands the material, the next step in the learning process follows—the organization stage. The student lays aside all books and prepares a topical or statement outline on the unit. The form of these outlines and the requirements of English usage therein are given in the manual which the school has adopted.[2]

This organization is a direct test of the ability to see the interrelationships of the facts learned in the pretest, the preview, and the assimilation. This ability is an index of the student's conscious methods of organization. Whether the outline is in topical or statement form, it reveals the student's difficulties in organizing subject-matter as well as his understanding of the unit. It thus

[1] See forthcoming article by Wilbur L. Beauchamp, entitled, "Supervised Study in Elementary Physical Science," for detailed procedure during assimilation stage.

[2] Rollo L. Lyman, *Standard Usage in English.* Chicago: University of Chicago Press, 1921. Pp. 24.

provides a concrete basis for individual supervision of the proper organization of a subject into major and subordinate points. Moreover, this organization is a summary test which reveals to the student his incorrect habits of study throughout the unit.

Recitation.—Following the completion of the organization by all of the students, one or two periods are given to oral recitation. The selection of recitation topics and the procedure in the recitation stage follow several different plans. Under any plan used, the student is expected to present his talk in a clear, well organized, straightforward fashion and in good English, assuming that he is speaking to an audience made up of those who have not studied the unit. Following the oral recitations, those students who have not given satisfactory oral recitations and those who have not had an opportunity to speak are required to write on a topic selected by the instructor.

It is evident that the activities involved in oral and written expression can be carefully supervised. Each talk is criticized by the members of the class and by the instructor in a way which leads the student to be conscious of his shortcomings. Individual conference with the student may help him to overcome certain attitudes and habits which are best not criticized before the class.

Supervised study, then, involves the diagnosis and correction of poor study-attitudes and study-habits. The teacher's duty in a natural-science class is not primarily "setting students to work" but rather "showing them how to study." Every one of the activities discussed requires careful supervision. The study of science becomes not the accumulation or memory of facts but a method of study which leads to the understanding of science facts and phenomena.

AN "EVERY GIRL" SUPPER

GRACE T. LEWIS
Mount Vernon High School, Mount Vernon, New York

A successful effort was made last year in the Mount Vernon High School to increase school spirit and loyalty and to foster those traits of character we so greatly desire in our young people today. Realizing fully that athletics, "shows," and entertainments have their place, we wanted to attain our object in some other way—to raise ideals and yet not preach virtue, to give a really good time without tawdry tinsel, and to create something lovely, the memory of which would be lasting. Our project was one of socialization, and to those who had any hand in its success it proved that a large number of busy folks—students, teachers, and townspeople—in spite of many difficulties and few conveniences at hand, could work together and evolve the desired result.

Now that our "Every Girl" Supper is a thing of the past, we can evaluate it rather completely and find out what gives us the desire to go through the work entailed to repeat our success this year. We feel that it gave us some things that we as a school never had before. This report has therefore been prepared in the hope that it may prove suggestive to other schools. Unless we occasionally have big projects before us, we are likely to see the faults of our co-workers, forget our own, and be blind to the virtues and good qualities of those with whom we come in daily contact. Faculty co-operation in our school took a decided step forward, and one who has worked through this project with such a group of teachers would be thoughtless indeed if the experience was soon forgotten.

In every school there are lessons to be learned that are not found in textbooks and friendships to be formed between pupils and teachers that may be begun or developed in common service for a jointly desired end. Mutual respect grows in contact outside of the classroom as well as within, and the teacher who is content

merely to teach has lost the privilege of companionship with young people to whom she can give much and from whom she can get much. We have tried to remember this, and our decision to have this supper at which all of the girls and women teachers would be present was made in part for this reason. We were also anxious to have our girls get better acquainted with each other. A school with an enrolment of 1,250, about half of them boys, must make a conscious effort to overcome some of the handicaps of size.

Our choice of hostesses was a fortunate one and was made with great care. Those who were unable to grasp the meaning of our plans were early eliminated as leaders by the speed with which the others hastened to carry out the plans. Hostesses, taken from the four classes in the school, vied with each other in getting their tables made up promptly and chose as some of their seven "guests" girls whom they did not know well. Careful records were kept from day to day of the progress of the table combinations, and the prominent girls were given the names of those not chosen. Several days before the supper, the incomplete tables were combined without heartburnings, and every girl was given a definite assignment. The spirit of those who gave up positions of honor and responsibility—the assignment of positions as hostess was made to girls who had shown themselves as unusual—for the sake of the success of our plans generated an atmosphere that helped every member of every committee.

Community interest was developed for a school activity which was not athletic and yet had attractive, though somewhat spectacular, features. It was something every girl could plan for and talk of for days ahead, something the school was giving her and doing for her. The bigness of the plans of necessity made every girl an active worker for the success of the cause.

The actual program for the evening was short and was not allowed to drag. It was avowedly inspirational and centered in the purpose to make the girls see the greatness of true catholicity of spirit. The printed program contained nine songs, written by some of the girls and sung to popular airs. Our girls, who do not have many chances to sing together as a school, made up that evening for many weeks of silence. A Senior took charge and was

supported by a sophomore pianist and a volunteer orchestra. At the request of the girls, one was called on to say grace before supper began. The place, privileges, and influence of the American girl of today were held up in sincerity and earnestness by the three speakers of the evening—a woman of note and two girls of the school, one a member of the junior class and the other a member of the senior class. The Senior gave us "The Girl of America"; the Junior, "The Girls of Other Lands"; and the speaker, "Girls around the World." So truly did these girls catch the vision of what the American girl ought to be and may be at her best that the speaker of the evening voiced more than empty words of congratulation when she said that girls like those among us gave inspiration to all. The school was a different place for days after this event took place.

One feature, not on the program but highly appreciated and unexpected by all concerned, was indicative of the real understanding and comradeship between the students and the faculty. It was the gift, "From Us to You," on the part of the girls to each teacher of a dainty, old-fashioned boutonnière of spring flowers.

All of the women members of the faculty were there, most of them helping, except one who was sick. Some broke long-standing appointments or traveled several hours in order to attend. About 460 girls were present, all but about twenty-five who were either ill or unable to be there for an equally good reason. Our attendance goal was reached. More were out, probably, than attended school on any one day during the term. Even the weather was in our favor.

About the middle of January, the dean of the school called together ten teachers and outlined her plans for the supper to be held in March. They enthusiastically approved, and all agreed to help. A Saturday evening was chosen in deference to the Hebrew girls of the school. The time was set at 5:30 P.M. on account of those who lived at a distance. It may be added that we began on time and closed at about a quarter after eight.

Only one general teacher committee meeting was held. At this meeting definite assignments of teachers were decided upon. Two were given charge of the program; one, tickets and publicity;

three, decorations; and four, service. The dean agreed to help out whenever and wherever necessary but did not plan to take more than general oversight, and that proved enough to keep her busy. At this meeting, the teachers decided which students they wanted on their subcommittees, making sure that the same girls did not serve on more than one committee. Some sixty-five hostesses were picked, and the price of the tickets was set at thirty cents each. This was but a nominal charge, covering the cost of the food only. All other expenses, amounting to approximately $125, were met by the General Organization of the school.

The hostesses selected were asked to attend a meeting to discuss plans for the supper. They wholeheartedly determined to work for 100 per cent attendance and the good fellowship desired. Each was told to make up her table quickly, not to allow cliques, to have all four years represented at her table, to designate one of her guests as a waitress, and to see that her table was supplied with a cake, a bottle of olives, and a glass of jelly. Each waitress was expected to come with a willing spirit and two pitchers for the table, one for cocoa and one for water.

Two weeks before the supper, tickets were placed on sale through the regular girl representatives in each official home room. It was extensively advertised that every girl would have a definite place at the supper and would be told where that place was at least twenty-four hours before the supper. The fact that, so early in our preparations, we made committee assignments and had waitresses and hostesses chosen increased the interest and gave us the momentum that comes with popular approval and responsibility for success. Many requests were made for tickets for former students of the school. These had to be denied because of lack of room and ability to handle the quantities of food necessary. The only "outsiders" present were the wife of the superintendent of schools, the wife of the principal, and the two women on the board of education. No men, not excepting the principal, were invited.

We asked for three reports on the sale of the tickets, each to include the names of the girls who had bought tickets and those who had not. Each hostess entered on a chart the names of her

guests and waitress. Student helpers checked these lists carefully and frequently. The red tape may seem to the reader to have been endless and too extensive, but the dean, who anxiously watched the plans, found it necessary. Those who were not coming were interviewed and the reason learned. Frequent bulletins appeared which influenced hesitating laggards. These referred to the details of the plans, strict injunctions regarding simplicity of dress, promises of definite seats in advance of the supper, etc. Posters were used. Some ten or fifteen tickets were privately, and without public knowledge, given to girls too poor to buy them. Teachers were invited as quickly as the girls themselves by hostesses who seemed genuinely to desire to make the most out of this opportunity.

Friday morning, the hostesses drew lots for the numbers which designated the location of their tables. Charts, giving the location of each table and the names of those seated at it, were conspicuously posted for reference. Even our eight colored girls were persuaded to come and were happily seated at a table of their own, with one of their number, a splendid Senior, in charge.

At 7:00 A.M., Saturday morning, the gymnasium was cleared and cleaned by an interested janitor. At 8:00, on scheduled time, a group of boys and girls began putting up the decorations, prepared previously under the direction of three teachers, one of whom was one of the art teachers of the school. At 9:15, the boys began bringing down the chairs, stools, and tables necessary. At 11:00, before we had thought necessary, the decorators and movers were out, having transformed a high-ceilinged, barren room into a low-ceilinged, springlike "banquet hall." Meanwhile, the kitchen force was at work, doing the necessary hundred and one things under faculty direction and with faculty help. At 1:30, the teacher in charge of table decorating and setting arrived with her corps of assistants, who speedily put on the figured paper table-cloths and vases with pussy willows and lovely paper daffodils made by the girls themselves. At 3:15, the hostesses began to arrive and immediately set to work to such good purpose that by 5:25 everything was ready.

After the supper, the girls cleared the tables, helped clean up the room, and helped the women who had been hired to take care

of the dishes. A large part of the next day was necessarily put in by five teachers in sorting and packing the borrowed property which was promptly returned by the boys from the first-period gymnasium class on Monday. The Sunday work would have been unnecessary had we had only our own school supplies for which to be responsible.

Perhaps it would seem that the faculty did too much of the "heavy work." To a certain extent the charge is true, but this was a new undertaking for our school, and much of the planning had to be done by some one responsible head and carried out under the supervision of those who could be held to follow a schedule worked out through days of planning. The few hours in which the work had to be done and the inconveniences which slowed up the machinery, creaking uncertainly and clumsily at best, made direction by immature students impossible. Let no one think that such a supper for such a number under such conditions is easy to carry through, but the rewards seemed to us so very much worth while that the hardest workers began the following Monday morning to talk of how we might improve our next supper.

It would be unfair to minimize the difficulties or ignore the handicaps with which we had to contend. The fact that they were so completely overcome by those so new to the work should give courage to other novices. While our lunchroom regularly serves from six to seven hundred pupils daily, there is a double lunch period, during which dishes and "silver" are washed. The supply of dishes and silverware was hopelessly inadequate. We prepared for 500, and some 4,500 different pieces were needed, of which the lunchroom could supply but about 2,500. The limited amount of money available precluded a caterer—and one would have spoiled the comradeship of our work together—and any renting was financially beyond us. Two sets of fancy paper plates were bought at wholesale rates through the father of one of the girls, and a few supplies were borrowed from two of the city grammar schools. Several large churches were approached in vain, but one small one generously offered its stock, and the largest hardware store in the city, controlled by the mother of one of the boys, agreed to complete the necessary loan. The renting of camp chairs was also

impossible, so the girls had to sit on the regular lunchroom stools, decidedly uncomfortable for two and one-half hours, but fortunately sufficient in number. The few good chairs were at the speakers' table and for the hostesses at each table. The gymnasium in which the supper was held was on the floor below the kitchen, so everything had to be carried there. Only eight dishes were broken or chipped out of the hundreds carried down and back by the untrained volunteer waitresses.

The public-school automobile, used for the transportation of the grammar-school children living at a distance from school, was pressed into service to gather in the various items borrowed and to return them. The men teachers unpacked the dishes; the girls and the women teachers counted and washed them. One man generously gave up his Saturday morning and made a trip of thirty miles from his home in another city to slice the cold meat for us. The supplies were purchased at wholesale rates through our dietitian, who cooked the meat and acted as general supervisor of cooking during all of Saturday. The quantities and prices listed on page 141 may be of value.

Another year, some improvements can be made in handling the affair. The tickets should have been priced a little higher. This year, we shall probably charge five or ten cents more, with a view to meeting the food costs. We should have planned more carefully regarding the food. Some was wasted in too generous helpings, and no arrangements were made for disposing of the food that was left. Good jellies, cakes, etc. should have been collected and taken to some charitable institution. Definite assignments for student helpers for the hours immediately preceding and immediately following the supper are necessary. The faithful few got an unnecessarily severe dose of work, and the teachers did more than they will do next time.

Too often we plan entertainments, good enough in themselves but lacking in originality, of the sort that can be duplicated, or improved on, outside of school with little imagination or ingenuity. Many of them fail to appeal to the hidden goodness and the sterling qualities in the girls. Wholesome, old-fashioned sensible pleasures should be held up as ideals, desirable in themselves, and "the

better angels of our nature" called forth. Any effort with this in view makes an appeal to which our girls will respond and cannot

12 10-lb. cans pineapple	$14.25	
12 10-lb. cans peaches	14.25	
1 large bunch bananas	3.50	
1 bottle Maraschino cherries	2.25	
Mayonnaise (without olive oil)	3.00	
1 bushel basket lettuce	6.00*	
10 lbs. peppermints	4.00†	
1 tin salted almonds	4.50†	
1 tin salted peanuts	3.20†	
12 lbs. butter	6.00	
4 10-lb. cans relish	4.00	
75 doz. rolls	9.75*	
Cocoa	15.50†	
2½ qts. cream	3.20	
125 lbs. roast beef	28.75	
4½ doz. pkgs. potato chips	6.75	
85 lbs. ice	.35	
58 qts. ice cream	23.20	
2 helpers	10.00	
2 helpers	6.00	
Total		$168.45
Speaker	$20.00	
Light, heat, janitor service	‡	
Decorations, etc.	25.00	
Incidentals	10.00	
Total		55.00
Grand total		$223.45

* This item could have been cut in quantity.
† This item might have been eliminated entirely.
‡ Donated by the board of education.

help but make them better. In the extra-curricular and social activities of our schools we should set standards and create an atmosphere in which they may live and grow.

CURRENT PRACTICES IN SUMMER SCHOOL

RALPH H. BUSH
Joliet Township High School and Junior College, Joliet, Illinois

For eighteen years the Joliet Township High School and Junior College has conducted a summer school. During this period there has developed a system of organization and routine. With a view to improving the organization, a letter was sent December 16, 1922, to the principals of 273 high schools. These schools were, with a few exceptions, located in towns with populations ranging from twenty-five thousand to one hundred thousand.

The letter was accompanied by the following questionnaire:

1. Do you have a summer school?
2. Is your school a four-year high school (Grades 9, 10, 11, and 12)? A junior high school (Grades 7, 8, and 9)? A senior high school (Grades 10, 11, and 12)?
3. How many weeks are there in the summer-school term?
4. How many days per week are recitations held?
5. What is the length of the recitation periods in minutes per day?
6. What is the length of the laboratory periods in minutes per day?
7. What is the length of the home economics periods in minutes per day?
8. What is the length of the shop (trade, industrial, manual training) periods in minutes per day?
9. How many periods per day are there in the summer school?
10. What is the length of the school day in the summer school?
11. How many subjects may a student take in the summer school?
12. Do you offer all subjects in the summer school?
13. If the answer to Question 12 is "No," what subjects are omitted?
14. How many absences or "cuts" do you permit in the summer school?
15. Do you excuse any absences in the summer school?
16. Do the members of the regular faculty teach in the summer school?
17. Do you bring in "outside" teachers for the summer school?
18. How do you determine the salary schedule? (*a*) A flat sum for all? (*b*) According to individual agreement? (*c*) A percentage of the regular salary?
19. How many classes does a teacher have?
20. Do you get as good results from the summer session as from the regular academic year?

21. How many years has the summer school been in operation in your school?

22. How many students were enrolled in the summer school of 1922?

Of the 273 high schools to which questionnaires were sent, 190, or 70 per cent, replied. Of those replying, 83, or 44 per cent, reported summer schools, while 107, or 56 per cent, reported no summer schools. Of the 83 schools reporting summer sessions, 59, or 71 per cent, are operated as traditional four-year high schools; 13 per cent as senior high schools; 12 per cent as junior and senior high schools combined; and 3 per cent as junior high schools.

The summer schools range in length from four to ten weeks, with 53 per cent of the schools reporting six weeks and 28 per cent of the schools reporting eight weeks. The requirements of the North Central Association of Colleges and Secondary Schools demand 120 clock hours for a full unit of credit in any subject or 60 clock hours for one-half unit of credit. In a summer school of eight weeks with 100-minute periods for recitation, $66\frac{2}{3}$ clock hours are devoted to each course. This is $6\frac{2}{3}$ hours more than the time devoted to a course in one-half of the regular school year. All but three of the schools hold recitations five days a week. One school has recitations four days, and two schools have recitations six days a week.

There seems to be a great divergence of practice with regard to the length of the academic class periods, as Table I shows. The range is from 40 minutes in 4 per cent of the schools to 120 minutes in 11 per cent of the schools. Approximately 50 per cent of the schools have 60-minute periods. The periods should be long enough so that when multiplied by the number of days of school the result, expressed in clock hours, will equal the requirements of the North Central Association for the regular academic semester. Table I shows also the length of the laboratory, home economics, and shop periods. In general, these periods are twice the length of the recitation periods.

Question 9, "How many periods per day are there in the summer school?" was used simply as a check on the other questions, and no tabulation of the results is made.

The length of the school day varies. Eighty-five per cent of the schools open between 8:00 and 8:30 A.M., and 59 per cent close at 12:00 M. Seventy-two per cent of the schools have from three to four hours of actual class work.

There is greater unanimity with regard to the maximum number of subjects allowed a student in summer school than with regard to the answers to most of the questions. Eighty per cent of the schools permit only two subjects to be taken; 17 per cent, 3 subjects; and 3 per cent, 4 subjects. Eighteen per cent of the schools reported that they would teach any subject in the summer school if enough students request it, while 82 per cent offer certain subjects only. Seventy-nine schools reported on subjects not offered in summer school as follows: 52 per cent do not offer stenography and typewriting; 66 per cent do not offer physics or chemistry; 31 per cent do not offer foreign language; 72 per cent do not offer home economics; and 71 per cent offer no shop courses.

TABLE I

LENGTH OF CLASS PERIODS IN 81 SUMMER SCHOOLS

LENGTH OF PERIOD IN MINUTES	NUMBER OF SCHOOLS REPORTING			
	Academic Subjects	Laboratory	Home Economics	Shop
40	3	.....	.....	.....
45	10	.....	.....	.....
50	5	.....	.....	.....
55	4	.....	.....	.....
60	40	3	.....	1
70	1	.....	.....	.....
80	1	.....	.....	.....
90	4	5	2	2
100	2	3	1	.....
110	2	.....	.....	.....
115	.....	1	2	2
120	9	20	6	8
140	.....	1	.....	.....
150	.....	.....	.....	1
180	.....	1	1	3
200	.....	2	1	1
240	.....	1	1	1
Total	81	37	14	19

Forty-five per cent of the schools permit no absences or "cuts" during the summer session; 26 per cent allow three cuts. On the

other hand, most of the schools that permit no "cuts" excuse absences for "cause," such as illness. The majority of the schools which permit three, four, or five cuts do not excuse any absences.

All of the schools reporting employ members of the regular faculty to teach in the summer school, while 28 per cent of them bring in teachers from the outside. No attempt was made to ascertain the exact amount paid to the summer-school teachers. The method of determining the salary schedule was what was wanted. It was found that 45 per cent of the schools pay a flat sum to all of their teachers—for example, $150 for the session—or a certain percentage of the tuition charges, etc. Twenty-eight per cent make individual agreements with the teachers; in other words, they follow no set schedule. Twenty-seven per cent reported that they pay a percentage of the teachers' regular salary.

There is considerable variation in the number of classes assigned to a teacher. Seventeen per cent of the schools assign two classes to a teacher; 36 per cent, three classes; while 42 per cent assign four classes.

Nearly all of the questions asked called for actual facts. There was one question, however, where personal opinion was desired, namely, "Do you get as good results from the summer session as from the regular academic year?" The replies were over 2 to 1 in favor of the affirmative. Six schools refrained from answering the question. Of nine schools which had had only one year of experience in handling a summer school, five replied "Yes" and four "No." Of four schools that had had over fifteen years of experience with summer schools, two replied "Yes" and two "No."

The reports show that 60 per cent of the schools have operated summer sessions six years or less, while 40 per cent have been in operation longer. Twenty-four per cent have been in operation for two years or less and 14 per cent over ten years. One school reported twenty-five years. In the majority of cases, the summer school started as a private tutoring school by members of the faculty and was later taken over by the board of education. Some of the summer schools are still conducted as private tuition schools.

No attempt was made to obtain the number of students registered in the summer session of 1922 on any particular date,

such as the opening day of summer school, or the middle of the summer school, or the close of the summer school. The question called for the number of students enrolled. Table II gives the details regarding the size of the summer schools.

TABLE II

NUMBER OF STUDENTS ENROLLED IN 81 SUMMER SCHOOLS IN 1922

Number of Students	Number of Schools	Percentage
0– 99	19	23
100–199	17	21
200–299	26	32
300–399	10	12
400–499	3	4
500 or over	6	7
Total	81	.....

A study of the data received indicates that the summer school has been, in many cases, a hit-or-miss proposition, although certain rather definite ideas have been evolved. Summer schools are conducted mostly by senior high schools. Classes are held five days a week for a period of sixty minutes or 120 minutes for shop and laboratory courses. School begins at 8:00 or 8:30 A.M. and closes between 12:00 M. and 1:00 P.M. The number of subjects taken is limited to two. The greater proportion of schools do not offer courses in science, home economics, industrial shop, stenography, or typewriting. The members of the regular faculty generally teach in the summer school. Their salary is usually a flat sum definitely agreed upon before the opening of the school. The daily program of a teacher consists of four classes. It is the opinion of most of the principals of the high schools offering summer sessions that the students do as good work in the summer session as in the regular school. The majority of the summer schools have been in operation less than seven years and report enrolments of less than three hundred students each.

The writer believes that the summer school should be made an important part of the school calendar and recommends the attention of administrative officers to the development of this phase of educational opportunity.

Educational Writings

REVIEWS AND BOOK NOTES

High-school management.—The rapidly changing conception of the American secondary school is calling for expression in the literature of education and is bringing out books which treat the high-school problem with an attitude free from traditional assumptions. So long as the high school was regarded as a purely college-preparatory institution or as an organized attempt to achieve some similarly restricted and specialized purpose, there was little occasion for courting the muse on the basis of high-school administration. The law of diminishing returns operated to discourage attempts to improve practice through microscopic increment at the expense of great labor and much time.

The recent war, however, has served as much as anything else to strengthen the idea that the public high school is the country's opportunity to develop a citizenship to match its civilization. Social and political disturbances have lent plausibility to the thought that unless efficient democracy can be made to keep pace with science, society may some day burst of its own power. Such function and responsibility, thus thrust upon the high school, do indeed give the matter a new perspective; the high school becomes as broad as life itself, and its direction becomes a job for those of power of observation and constructive imagination as well as of the erudition heretofore demanded.

A recent book[1] accepts this broader conception and treats the question of high-school management accordingly. The opening chapters discuss the relation of the school to the community, the board of education, the superintendent, the principal, and the dean of girls. The improvement of teachers in service is given one chapter. Records and marks are discussed in detail. One chapter consists of a brief treatment of the psychology of learning and its significance for high-school teachers. Chapters ix, x, xi, and xiv are the citizenship chapters, dealing with pupil-participation in control, discipline, extra-curricular activities, and school spirit. Chapters xii and xiii call especial attention to the importance of the practical arts and physical education. The final chapter is devoted to ethical aims.

Especially convincing is the exposition of the meaning of self-government:

> Pupil participation and co-operation in school life are based on the theory that citizenship in a smaller or larger group of society necessitates ideals and knowledge

[1] Paul E. Belting, *The Community and Its High School.* Boston: D. C. Heath & Co., 1923. Pp. 372.

combined in action. Responsibilities and privileges demanded and granted as requirements for and rewards of membership in democratic society suggest self-control on the part of the individual, and direction and advice on the part of the community. The omission of self-control leads to despotism; the omission of guidance leads to anarchy. The high school through its teachers may use force and compulsion, or it may use the interests and purposes of children as the means of development, but in the latter case the teacher has not abdicated [p. 222].

A paragraph which epitomizes the spirit of the book is entitled, "Success in School":

> The saying that "nothing succeeds like success" has a firm basis in psychology, to the extent that nothing but success is satisfactory. The same holds true in scholarship. Where pupils talk favorably about their high school and uphold its traditions, it is generally true that those same pupils have found satisfaction in class instruction and achievement. Consequently, it becomes the business of the high school to provide that kind of legitimate work in which the great majority of pupils can succeed. An older conception of the high school was that it was an institution for the academic education of the leaders of society, to the exclusion of all pupils who could not successfully pass the same standards. It goes without saying that the spirit in such an institution, other things being equal, can in no wise compare with the spirit of a high school that has a diversified curriculum for the differences that exist among pupils [p. 336].

Other helpful features are the discussion of the functions of the board of education and its relation to the high-school principal, the critical estimate of county institutes and similar affairs, and the explanation of the significance of the normal frequency curve in relation to school marks.

The young student of high-school administration will be somewhat appalled by the startlingly long list of deviltries of which adolescent America is reported to be capable and even fond, as reported by the author. This chapter of horrors is one of the results of the questionnaire method of book-writing, employed here to some extent; it reflects also the ruminations of the author's students. But after rambling around in this "Slough of Despond," the reader is led back to better going through such constructive measures as modern methods of teaching, attention to pupils' interests, pupil-participation in control, and so on.

H. H. RYAN

BLEWETT JUNIOR HIGH SCHOOL
St. Louis, Missouri

United States history for the senior high school.—"To put the vital facts of American history into readable form" (p. vii) has been the aim of Professor Hulbert in a book[1] which tells the story of the United States from the discovery of America by Columbus to the Four-Power Pacific Treaty. His aim has been realized.

The book is arranged in four parts, thirteen chapters, and sixty-seven sections. Part I tells interestingly, yet tersely, the story of discovery and

[1] Archer Butler Hulbert, *United States History.* Garden City, New York: Doubleday, Page & Co., 1923. Pp. xx+656. $2.00.

colonization. Part II gives an account of the acquisition of the interior of the continent by the British, the Revolution, the first critical period of the republic, and the development of nationality up to 1837. The part played by the West in bringing on the Revolution is especially emphasized. The contest between the back country and the coast is clearly shown, and the Revolution is portrayed as a civil war as well as a struggle for freedom from British control. Part III treats of sectionalism and the Civil War. Part IV consists of four chapters on the tremendous economic development of the nation, the Cleveland era, the challenge of internationalism, and the world-war and reconstruction. More space is devoted to the last part of the book than to any other part.

The language is simple, and the style is interesting. Scholarship characterizes the work throughout. One is impressed by the fairness of the accounts and of the treatment of the various forces in the life of the nation. The influences of nature and of the West receive more attention than they usually do in similar books. The author does not fail to mention our mistakes and weakness as well as our successes and strength, but he always tries to give the reader an abiding faith in the ability of each generation to solve its problems. The book has ethical value and an optimistic tone.

The text abounds in pedagogical aids. It contains fifty-seven maps, some of which are in colors. The illustrations are numerous, and the great number of pictures of the principal characters add to the personal element in the story. Each chapter has a masterful introduction, and to each section are appended a reading list and material entitled "Query and Discussion." The appendixes are unusual in length, content, and worth. A chart of the presidencies, with the dates and chief events of each administration, is good, while the biographical sketches covering thirty-one pages and 452 lives are significant. The index is complete, consisting of twenty-three pages. It would be more valuable, however, if it were self-pronouncing. On the whole, the book is admirably adapted as a text for the upper classes of the high school.

HEBER P. WALKER

The background for a survey course in French literature.—A well-organized survey course in French literature, whether at the high-school or college level, follows an itinerary mapped out by a history of French literature, which is usually either a compilation by an American scholar interested in the abstractions of literary criticism or else a *précis* of French literary history written by a Frenchman for French students. In either case, it is too often wanting in explicit information concerning the *milieu* of the literary figures—the national traditions, past survivals, and present conditions—without which the American student cannot acquire a precise understanding and correct appreciation of French literary personages and tendencies.

M. Roz, of the *Office National des Universités et Grandes Ecoles* of France, presents in clear, direct style for the use of American students a history of

French literature[1] that shows the literary figures and movements in their relation to French history and society, somewhat in the manner of a panorama. Its broad and fairly unprejudiced treatment should stimulate in the student a desire for further study in the subject.

The author has succeeded remarkably well in pointing out this relationship, particularly during the seventeenth and eighteenth centuries. Discarding the classification of literature by *genre* on the grounds of interrupted continuity and want of correlation with general history, he has followed the order of facts. The result is a distinct gain in clarity.

Up to the contemporary period, names that do not represent an original contribution or an outstanding quality of the French genius have been omitted. The student is given the biographical facts concerning each author indispensable for the understanding of his most representative works, selected on the basis of their relation to the author's writings as a whole and to his time. In the modern period there is no attempt to be selective or complete or definitive but merely to indicate tendencies, movements, and essential characteristics. The defect of this treatment is apparent in the closing chapter, which is little more than a hurried catalogue of authors and titles.

To the text, M. Cardon has added the inevitable questionnaire (pp. 287–305), original in the inclusion of questions requiring oral summaries and definitions, in allowing latitude in the answers, and in the listing of *sujets de devoirs* to be used in developing the study of special topics. A somewhat advanced *exposé* of the mechanism involved in a critical study of a play is appended as a suggestion to the student in dealing with a special subject of study.

In his "*Notes historiques*" (pp. 311–18), M. Cardon has put some valuable explanatory matter that might better have been included in the alphabetical arrangement of the *Lexique* (pp. 319–33), which would have made it more accessible, or have been given in footnotes, to which it is perhaps better adapted. Since there are no textual references to these notes, it is doubtful whether this material will be consulted by the student. The *Lexique* is fragmentary and unsystematic, often including cognates and omitting derived and secondary meanings.

The illustrations, 138 in number, are well chosen, dealing mainly with original documents and bearing explanatory notes. They add to the general attractiveness of the typography and make-up of the volume. Written by a Frenchman, in French, for American students of advanced standing in the language, the volume is a commendable guide to one seeking an initial acquaintance with the mass of French literature.

O. F. Bond

Some factors in progressive education.—Many times in the very earnestness of purpose and intensity of effort which characterize school work, the teaching

[1] Firmin Roz, *Vue Générale de la Littérature Française*. Chicago: Allyn & Bacon, 1923. Pp. xiv+334+22.

profession overlooks the fact that it is only one of a large number of interrelated agencies working toward the successful regulation of human behavior. To be progressive, it is not necessary for a system of education to be wholly new, but to make full use of the available contributions of psychology, sociology, biology, and other related fields which deal with the problems of human nature and social improvement.

A new book[1] presents this view in an interesting manner. The material is divided into two parts. Part I gives "The Reasons for Progressive Education," and Part II states "The Methods of Progressive Education." In the first part the discussion is presented in this order: "Two Kinds of Educational Thinking," "The Biological Point of View in Education," "The Sociological Point of View in Education," "The Place of Control in Education," "How Intelligence Grows," "An Individual Pupil," and "An Individual School." The first chapter introduces the subject by pointing out that thinking formerly was deductive or philosophical, tending to keep things static, while the new type of thought is more inductive and experimental. Significant biological and sociological factors in education are emphasized. The author shows that just as the teacher has in each pupil an individual problem to solve, so every school has a different situation to meet in adjusting itself to the community it serves.

Part II presents the following topics: "The Basic Principles of a Progressive School," "The Life of the School," "Discipline," "Individual and Socialized Study," "The Problem and the Project," "Self-Education and Appreciation," and "Educational Measurements and the Teacher." The following statement is suggestive:

> A teacher, a principal, a superintendent cannot then "make" a school, or "set one up," in a community. The natural conditions, the people, the children and the teacher, principal, and superintendent—all must be taken into the reckoning in the organization and developing of a progressive school [p. 153].

A distinction is made between the "good disciplinarian" of the past who "made the children mind" and the teacher who sees that individual adjustment is secured in the school life so as to bring about effective working conditions. Attention is called to the fact that recitations cannot be socialized from the outside or by changes in the external forms of conducting them.

> The form is unimportant and will evolve itself, if the teacher understands and believes in the idea, and starts in the direction that will lead to its realization. She will accept what limitations she herself may have. She will begin on the level of her pupils' present development. She will be governed by their abilities and the signs that the socializations are bearing genuine educational fruit [p. 227].

To a large extent, the volume is written in plain, untechnical language which even the lay reader should find little trouble in understanding. In both Part I and Part II, the supplementary readings listed may serve to furnish additional information from several angles. The chapter on "Educational Measurements and the Teacher" is brief but provides at least an introduction

[1] George A. Mirick, *Progressive Education*. Boston: Houghton Mifflin Co., 1923. Pp. x+314. $1.90.

to this important topic. The summary at the end of each chapter is a valuable aid to the reader in organizing the content in a logical manner. Nine illustrative diagrams are included in the reading material.

CARTER V. GOOD

A contribution to occupational information.—The private secretary is no longer an experiment. Increasing in importance and responsibility, the position has an assured place in modern business. Hence a systematic treatment of secretarial work is both timely and necessary. This opportunity has been recognized and accepted by Miss Taintor in a recent book[1] on secretarial practice which she has written out of her experience in teaching secretarial subjects at Columbia University.

The book aims to cover the entire work of the secretary. The first part discusses the qualifications, duties, and training of the secretary and the routine of office activities. Since a secretary must write many letters, the second part is devoted to a study of letters, their form, possibilities, and the best usage in the case of disputed points of form and content. The third part is given over to the work of the social secretary.

A thorough reading of the books shows that the prospective secretary is kept constantly in mind. As a consequence, the discussion is replete with practical advice and is weighted with sample calendars, appointment schedules, diaries, reports, etc. This same tendency toward concrete and apt suggestion is apparent in the two chapters which contain letters from prominent executives and successful secretaries setting forth what they regard as the essential characteristics of the efficient secretary.

The exposition of the business letter in the second part is very commendable. Most writers of manuals of business English present only the barest minimum of conventional types of business correspondence. Miss Taintor has done much better; she includes not only the customary forms but also samples and instructions for writing letters for any situation which is likely to arise in commercial life. In addition, she gives definite guidance in other kinds of business writing, such as the preparation of material for the printer and the editing of the house organ.

Some features which make the book valuable as a text are the exercises and the suggestions for study, the references at the close of most of the chapters, and the lists of books in the Appendix for the secretary in the office and the secretary in the home.

Some questions might be raised. If the subject of the social secretary is sufficiently pertinent to be included at all, why is so little space given to its discussion? In a study with such specific application to modern conditions, why should space be given to the history of the secretary and the development of the letter since neither of these topics has any relevance for present-day secretarial practice?

[1] Sarah Augusta Taintor, *Training for Secretarial Practice*. New York: McGraw-Hill Book Co., Inc., 1923. Pp. xii+298.

These objections, however, are of such minor importance that they do not mar the essential value of the book. As a pioneer contribution to a field which has long needed such an exposition as the book gives, it will not only be valuable as a source of information in the guidance of young people contemplating the career of a secretary but may also serve as a basal text in commercial courses designed to train for secretarial practice.

HOWARD Y. MCCLUSKY

A volume of American short stories.—Unlike most collections of short stories, a recently published volume[1] is not confined to what the compiler considers the best short stories which have appeared. To be sure, the volume does contain a selection of "the best American short stories," but it comprises, in addition, representatives of what the editor deems the best short stories which have been published "at all periods of development, even though the best of one decade fall far below the best of another." It is, therefore, as the editor claims, "a volume of American short-story writers quite as much as it is a book of American short stories" (p. xiii).

The book is generous in both volume and range. Its more than twelve hundred pages of small print include a total of seventy-four stories averaging more than 7,500 words each. Nineteen of these stories are over "10,000 words in length; and, of these, six are over 15,000 words long. Only seventeen stories contain less than 5,000 words apiece" (p. xxxiii). The volume contains a preface of twenty-five pages, dealing with certain historical and critical aspects of the short story, and appendixes of more than two hundred pages devoted to bibliographical data relating to the short story.

The stories in the volume are arranged in the chronological order of their publication. They are the work of sixty-four different authors, two of them anonymous. The earliest story, "Chariessa; or, a Pattern for the Sex," by an anonymous writer, appeared in 1788; the latest, "All or Nothing," the work of Charles Caldwell Dobie, was first published in 1921. All of the greater American writers of fiction are represented. Six stories in the volume are by Edgar Allan Poe, five by Nathaniel Hawthorne, and two by Bret Harte, Harte being regarded as the "most typical American short story writer" (p. xxxii), while Poe and Hawthorne are classed as the two greatest writers of the short story; no other author is represented by more than one story. Notable among the longer short stories in the volume are "The Gold Bug" by Poe, "Up the Coolly" by Hamlin Garland, "The Exiles" by Richard Harding Davis, "The Mind-Reader" by S. Wier Mitchell, and "Monsieur Beaucaire" by Booth Tarkington. Of the stories which have appeared in the last thirty years, the editor regards as establishing "the high-water mark of prose writing in American fiction . . . . at any rate in the short story," "Clavis" by Annie Trumbell Slosson, published in 1896, and "Lovers in Heaven" by Julian Haw-

[1] Alexander Jessup, *Representative American Short Stories*. Chicago: Allyn & Bacon, 1923. Pp. xxxviii+974+210.

thorne, published in 1905. With five exceptions, each of the seventy-four stories in the volume was first published in some periodical, a fact, as the editor notes, significant of the influence played by the magazine in the development of American literature.

The volume is a boon for the student of the short story. Its collection of stories; its carefully selected references for the study of the short story in English, French, and Russian as well as in American literature; and its elaborate "List of Representative American Short Stories," arranged, first, by the authors and, second, according to the chronological order of publication, render a distinct service to all who are interested in what the editor rightly calls "America's supreme literary achievement, its chief contribution to the literature of the world" (p. xv). The volume is worthy of duplication by the school library.

HOWARD C. HILL

A symposium for the players of the stringed instruments.—Players of the stringed instruments might well consider a few hours of priceless value if within those hours they may learn the vital points of the mastery of their chosen instruments as told by the greatest of our contemporary teachers and artists. It has been the educational and constructive purpose of Frederick H. Martens to give to the players of these instruments just such an opportunity.

In his recent book[1] there are no rambling discourses or long theoretical discussions, as might be expected from the title. In the fifty-eight interviews the leading theme is always adhered to. The personal, artistic, or pedagogic experience of the artist or teacher is made the basis for the discussion. Of course, such a work may not be absolutely comprehensive, but only those who speak with authority on the subjects they represent have found places in the pages of this book. Its aim is to "aid every student and player of the string instruments to persevere and to achieve" (p. vi).

The interviews are reported in such a pleasant, intimate way that the reader comes to feel an almost personal acquaintance with the great masters and teachers. Incidents of studio experience, revealing the inner lives of some of the remarkable musicians, are of absorbing interest to those who do not play, but to students and artists the crystallization of the vital points amounts almost to inspiration. It is a most valuable book for the musician's library.

H. R. VAIL

An elementary Spanish text.—The author of a recent text[2] in elementary Spanish states that his aims are to teach grammar by the direct method, with little grammatical material in each lesson, and to stress the significance of the

[1] Frederick H. Martens, *String Mastery*. New York: Frederick A. Stokes Co., 1923. Pp. x+360. $3.20.

[2] M. E. Manfred, *Practical Spanish Grammar for Beginners*. New York: Charles Scribner's Sons, 1923. Pp. xvi+456.

personal endings of verbs and of a small vocabulary, beginning with the time-honored schoolroom words and phrases. However, he very soon increases his small word-list to twenty-nine new words in the fifth lesson and forty-two in the seventh lesson; a relatively large number of new words is added in each of the succeeding lessons. Even though this vocabulary is excellent from the point of view of usableness and practicability, the very young beginner finds the introduction of so many words confusing as they cannot be thoroughly assimilated.

The lesson units consist of presentation material introducing the new grammatical elements, "*lectura*," and exercises. In the presentation is given a passage of connected Spanish, illustrating the new points under consideration, followed by questions and answers. From this the pupil may draw his own conclusions which later are succinctly stated in the "*Gramática*." The questions and answers consist of a statement which contains a nucleus of the material under consideration, followed by four interrogative sentences with their respective answers cleverly re-worked. This is a distinct and highly useful feature of the text. The "*lectura*," taught first with the books closed, serves a twofold purpose—manipulation of grammatical material and introduction of the new vocabulary presented by means of objects, action, pictures, etc.—thus establishing the direct connection between the object and the foreign tongue. There follow abundant exercises of various types: questions and answers, blanks to be filled in, conjugation of verbs in sentences, substitution exercises, etc. These exercises seem rather too long, but they are made necessary by the size of the vocabulary. The entire lesson unit is too long for the ordinary class period, but it is so arranged, as the author suggests in the Preface, that it may be taught in three or four days.

The "*Gramática*" is one of the best features of the book. The statements summarize the essential facts clearly and concretely. They are given in English, but the Spanish equivalents for the chief terms are given in each lesson with a useful "*Vocabulario gramático*" in the Appendix.

The treatment of the verb is very well handled. Until Lesson X the present tense is used, with the three conjugations given in separate lessons. The past absolute, the past descriptive, and the present perfect, fortunately, are treated separately. The uses of the subjunctive are carefully developed, but much of this might well be left for the second year.

Object pronouns are given a prominent place and are introduced as early as Lesson IV in order to acquaint the student with them at the outset and to give ample opportunity for repetition. The reflexive pronouns are presented clearly and thoroughly so that many of the difficulties of English-speaking students may be avoided.

In the Appendix there is to be found a most useful gathering together of essential material under the headings: "Pronunciation," "Capitalization," "Conversational Material"—which includes four reading lessons, idioms, and proverbs—and a "Grammatical Summary." The latter is followed by classified verb-lists.

In its external aspect, the book is attractive and well printed. Grammatical features, such as verb endings, object pronouns, etc., are printed in black-faced type when first presented. The connected passages give the stressed points in italics. Light-faced type is used in the Spanish-English vocabulary.

Of the illustrations, two are familiar to users of Spanish beginners' texts, "*El Patio de los Leones*" from the Alhambra and "*La Giralda*" of Sevilla; two are maps, one of Spain and one of Latin America. The rest, entitled, "*Nuestra Escuela*," "*Mi Familia*," etc., are complements to the "*lecturas*," with each object numbered and the Spanish name written below.

The book is very complete and generally satisfactory. It represents the results of six years of classroom use which have made it concrete, stimulating, and most teachable. It makes for a "systematic study of a definite whole." It deserves a cordial welcome.

MARY W. DILLINGHAM

The biography of a great teacher.—A recent volume[1] by the son of Professor Arthur Latham Perry, of Williams College, should be read by everyone whose profession is teaching and by every person to whom the note of human reality in literature makes an appeal. The book contains six brief chapters which give an intimate account of the life and services of this great teacher, author, and minister, who was an outstanding figure in the history of education in New England during the latter half of the nineteenth century. In addition to its biographical value and the wholesome philosophy of Professor Perry's life, the book presents a picture of the early college and its influence on contemporary life that is most illuminating. The charm of the author's style and his success in blending his deep feeling for his father with a rich humor give the book an absorbing interest.

W. C. REAVIS

A useful supplement to any course in literature.—John Drinkwater has edited a book[2] which, although it is in no sense a textbook, is valuable to every teacher of English. He states in the Introduction the two functions of the book:

> First, it is to give the reader something like a representative summary of the work itself that has been accomplished by the great creative minds of the world in letters. But, also, it aims at placing that work in historical perspective, showing that from the beginning until now, from the nameless poets of the earliest scriptures down to Robert Browning, the spirit of man when most profoundly moved to creative utterance in literature has been and is, through countless manifestations, one and abiding [p. 3].

[1] Carroll Perry, *A Professor of Life*. Boston: Houghton Mifflin Co., 1923. Pp. 114.

[2] *The Outline of Literature*, Vol. I. Edited by John Drinkwater. New York: G. P. Putnam's Sons, 1923. Pp. xiv+296. $4.50.

This volume relates the story of the making of the first books in the world and describes the outstanding works of the various nations to the end of the Renaissance. The book is not intended as a substitute for the literature itself; it is merely the story of the growth of literature, told simply enough for any child to understand. There are more than five hundred illustrations, some of which are colored. These illustrations are made from photographs of interesting manuscripts and of paintings by famous artists. The latter are as representative in the field of art as the masterpieces discussed are in the field of literature. One notes names from Michael Angelo and Raphael to Rossetti and Burne-Jones.

Through the entire story the "sense of continuity" and the "perspective" aimed at by the author are never lost. To young people the book will be a never-ending source of advertisement of the world's best literature, by the short synopses, more suggestive than complete, and by the beautiful illustrations, arousing curiosity and a desire to know at first hand. To mature minds it will appeal in the completeness of its story and in the pointing out of striking parallels. For example, in speaking of the Greek drama of the fifth century before Christ, the author says:

> Fifty-three years were sufficient for the complete development of what has been described as "the greatest work of art the world has ever witnessed." A similar remarkable development characterized the drama in Elizabethan England. All the plays of Marlowe, Shakespeare, Ben Jonson, Beaumont and Fletcher, Massinger, Webster, and Heywood were written in thirty-eight years [p. 191].

The English teacher fortunate enough to own a copy, although he cannot use it directly in his classes, will find many indirect uses for a book so accurate in its make-up and so fascinating in its content.

MARTHA JANE MCCOY

Moral education in the school.—During the period of the world-war certain moral convictions elevated the general welfare of the group above selfish and individual interests. However, along with the inevitable commercial deflation has come an extensive moral relaxation. This spirit is evident in the numerous strikes, labor troubles, industrial crises, race riots, mob rule, and the general unrest of the times. To relieve somewhat this condition in the present and to prevent similar difficulties in the future, there seems no more feasible means than proper education of the future citizens in the schools of today. A recent book[1] makes the following comment:

> The moral opportunities of our educational institutions are abundant. What our young people study, how they study, what they see exemplified in fellow-pupils and teachers, what they practice for themselves, the attitudes they are encouraged to take toward life in all their contacts with school, home, vocation, community—all these offer occasion to develop ideals, outlooks, habits, of a kind sorely needed in the

[1] Henry Neumann, *Education for Moral Growth*. New York: D. Appleton & Co., 1923. Pp. xii+384.

world and of a better kind than are likely where attention is not focused upon them. These opportunities are given specific treatment in these pages [p. vii].

The volume is divided into three parts. In introducing the question, the author says: "The gravest problem for school, home, and community today is not raised by the relatively small number of criminals. It is raised by the moral unenlightenment of the much larger number of quite respectable persons" (p. 3). Part I takes up the matter of ideals for American culture in a discussion of the true meanings of freedom and equality. It is shown that real freedom is not license but "to help all men release in themselves that which liberates the highest life in their fellow-beings" (p. 30). Positive equality means that each man shall be aided in bringing out the best things in his nature and in using these gifts at some appropriate task.

Part II deals with the forces which have contributed to the shaping of American ideals. The material is arranged in this order: "The Puritan Offering," "The Spirit of Nationalism," "The Tradition of Classical Culture," "The Contribution of Modern Science," "The Demand for Vocational Fitness," and "The Pragmatist Criticism." Part III examines the agencies through which may be produced the desired ethical and moral effects. It is pointed out that the most important moral agency is found in the actual performance and self-direction of the pupils themselves. A chapter on "Direct Moral Instruction," presents the case for systematic moral training where teachers are competent and conditions are favorable for so delicate and important a task. It is understood that all schools cannot give separate courses in moral instruction, and another chapter shows how moral values may be found in the various studies of the school. Attention is directed to certain native tendencies which may be used to quicken the better sentiments. The feelings are to be employed to prevent moral instruction from becoming a colorless sense of right and wrong and to give character to the process. While religious instruction is hardly possible in the schools, it is shown that moral training provides a substantial basis for any religious beliefs that the pupils may later profess. A final chapter discusses "The Teacher."

The problem set forth in the book is pertinent and deserves the attention of the teaching profession. Frequent quotations are presented throughout the volume, and additional references are given at the end of each chapter. A list of questions and problems at the close of each chapter is stimulating to the mental activity of the reader.

CARTER V. GOOD

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